

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD
FROM TO

Commission File Number 001-38233

CarGurus, Inc.

(Exact name of Registrant as specified in its Charter)

04-3843478
(I.R.S. Employer
Identification No.)

Delaware
(State or other jurisdiction of
incorporation or organization)

2 Canal Park, 4th Floor
Cambridge, Massachusetts
(Address of principal executive offices)

02141
(Zip Code)

Registrant's telephone number, including area code: (617) 354-0068

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Name of Exchange on Which Registered</u>
Class A Common Stock, par value \$0.001 per share	The Nasdaq Stock Market LLC (Nasdaq Global Select Market)
Securities registered pursuant to Section 12(g) of the Act: None	

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES NO

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES NO

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES NO

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files). YES NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Small reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES NO

The aggregate market value of the registrant's Class A common stock par value \$0.001 per share held by non-affiliates of the registrant based on the closing price of the registrant's common stock as reported on the Nasdaq Global Market on June 30, 2018 was \$1,590,103,543. Shares of voting and non-voting stock held by executive officers, directors and holders of more than 5% of the outstanding stock have been excluded from this calculation because such persons or institutions may be deemed affiliates. This determination of affiliate status is not a conclusive determination for other purposes.

As of February 22, 2019, the registrant had 90,087,775 shares of Class A common stock, and 20,702,084 shares of Class B common stock, par value \$0.001 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for its 2019 Annual Meeting of Stockholders are incorporated by reference in Part III of this Annual Report on Form 10-K. Such Proxy Statement will be filed with the U.S. Securities and Exchange Commission within 120 days after the end of the fiscal year to which this report relates. Except with respect to information specifically incorporated by reference in this Form 10-K, the Proxy Statement is not deemed to be filed as part of this Form 10-K.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the federal securities laws, which statements involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as “anticipates,” “believes,” “could,” “estimates,” “expects,” “intends,” “likely,” “may,” “might,” “plans,” “potential,” “predicts,” “projects,” “seeks,” “should,” “target,” “will,” “would,” or similar expressions and the negatives of those terms. Forward-looking statements contained in this report include, but are not limited to, statements about:

- our future financial performance, including our expectations regarding our revenue, cost of revenue, gross profit or gross margin, operating expenses, ability to generate cash flow, and ability to achieve, and maintain, future profitability;
- our anticipated growth and growth strategies and our ability to effectively manage that growth;
- our ability to maintain and build our brand;
- our ability to continue to expand internationally;
- the impact of competition in our industry and innovation by our competitors;
- the impact of accounting pronouncements;
- the impact of litigation;
- our ability to hire and retain necessary qualified employees to expand our operations;
- our ability to adequately protect our intellectual property;
- our ability to stay abreast of new or modified laws and regulations that currently apply or become applicable to our business;
- our ability to overcome challenges facing the automotive industry ecosystem, including global supply chain challenges, changes to trade policies and other macroeconomic issues;
- failure to maintain an effective system of internal controls necessary to accurately report our financial results and prevent fraud;
- our expectations regarding cash generation and the sufficiency of our cash to fund our operations; and
- the future trading prices of our Class A common stock.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this report primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, operating results, and growth prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties, and other factors described in the section titled “Risk Factors” and elsewhere in this report. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this report. Further, our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, or investments we may make. We cannot assure you that the results, events, and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements.

The forward-looking statements made in this report relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this report to reflect events or circumstances after the date of this report or to reflect new information or the occurrence of unanticipated events, except as required by law.

Item 1. Business.**BUSINESS****Overview**

CarGurus is a global, online automotive marketplace connecting buyers and sellers of new and used cars. Using proprietary technology, search algorithms, and innovative data analytics, we believe we are building the world's most trusted and transparent automotive marketplace and creating a differentiated automotive search experience for consumers. Our trusted marketplace empowers users with unbiased third-party validation on pricing and dealer reputation as well as other information that aids them in finding "Great Deals from Top-Rated Dealers." Our selection of car listings provides the largest number of car listings available on any of the major U.S. online automotive marketplaces. In addition to the United States, we operate online marketplaces in Canada, the United Kingdom, Germany, Italy and Spain.

A core principle of our marketplace is transparency. For consumers considering used vehicles, we aggregate vehicle inventory from dealers and apply our proprietary analysis to generate a Deal Rating as one of: Great Deal, Good Deal, Fair Deal, High Priced, or Overpriced. Deal Rating illustrates how competitive a listing is compared to similar cars sold in the same region in recent history. We determine Deal Rating principally on the basis of both our proprietary Instant Market Value, or IMV, algorithm, which determines the market value of any given vehicle in a local market, and Dealer Rating, a measure of a dealer's reputation as determined by reviews of that dealer from our user community. By sorting organic search results based on a used car's Deal Rating, we enable consumers to find the most relevant car for their needs. For new cars, we help our users understand deal quality by providing price analysis and our Dealer Rating. We also provide our users information historically not widely available, such as Price History, Time on Site, and Vehicle History. We believe this approach brings greater transparency, trust, and efficiency to a consumer's car research and buying process, leading to higher engagement and a more informed consumer who is better prepared to purchase at the dealership.

Our large, engaged, and predominantly mobile user base presents an attractive audience of in-market consumers for our dealers. By connecting dealers with more informed consumers, we believe we provide dealers with an efficient customer acquisition channel and attractive returns on their marketing spend with us. Dealers can list their inventory in our marketplace for free with our Basic Listing product or with a paid subscription to our Enhanced and Featured Listing products. Dealers with our Basic Listing product receive anonymized email connections and access to a subset of the tools on our Dealer Dashboard at no cost. Dealers with a paid subscription receive connections with consumers that are not anonymous and can be made through a wider variety of methods, including phone calls, email, managed text and chat, links to the dealers' website, and map directions to dealerships. Dealers with our Enhanced and Featured Listing products are able to display their dealer name, address, and dealership information on their listings to gain brand recognition, which promotes walk-in traffic to the dealer. We also provide paying dealers with full access to our Dealer Dashboard, including inventory pricing tools informed by real-time market conditions, which helps them more effectively price, merchandise, and sell their cars. Our success with dealers is evidenced by the number of paying dealers in our U.S. marketplace. Our U.S. marketplace had 27,534 paying dealers as of December 31, 2018 compared to 25,122 and 20,349 as of December 31, 2017 and December 31, 2016, respectively.

Our scaled online marketplace model drives powerful network effects. The industry-leading inventory selection offered by our dealers attracts a large and engaged consumer audience. The value of robust connections to this audience incentivizes dealers to purchase our Enhanced or Featured Listing products. Having more paying dealers provides consumers with more dealer information and methods to contact them. More consumers and connections drive greater value to paying dealers on our platform. Driven by these network effects, we continue to amass more data, which we use to continuously improve our search algorithms, the accuracy of Deal Ratings, our user experience, and, ultimately, the quality of the connections between consumers and dealers.

We generate marketplace subscription revenue from dealers through subscriptions to our products including our Listing (which includes features and enhancements such as Delivery), Dealer Display, Dealer Search Engine Marketing, Social Media Advertising, and Retargeting products. We also generate advertising and other revenue from auto manufacturers and other auto-related brand advertisers. Our rapid revenue growth and financial performance over the last several years exemplifies the strength of our marketplace. We generated revenue of \$454.1 million in 2018, \$316.9 million in 2017, and \$198.1 million in 2016, representing year-over-year increases of 43% in 2018 and 60% in 2017. In 2018, we generated net income of \$65.2 million and our Adjusted EBITDA, a non-GAAP financial measure, was \$49.0 million, compared to net income of \$13.2 million and Adjusted EBITDA of \$24.1 million in 2017 and net income of \$6.5 million and Adjusted EBITDA of \$11.0 million in 2016. See "Selected Consolidated Financial Data — Adjusted EBITDA" for more information regarding our use of Adjusted EBITDA and a reconciliation of Adjusted EBITDA to our net income (loss).

Consumer Challenges

Upon determining what type of car to purchase, consumers face many questions:

- Which dealer has a car like this?
- What is a fair price for this particular type of car?
- Have others had a good experience buying from this dealer?

In answering these questions, consumers historically had limited access to unbiased information on specific vehicles, car pricing, and dealer reputation. Every used car is unique, and so for consumers searching for used cars, it is difficult to aggregate the relevant inventory of available cars across dealers, a difficulty exacerbated by the lack of consistency in the way that dealers characterize a car's attributes. Generally, dealers had more information about car prices than consumers did, as consumers had limited resources and tools to determine an appropriate price. Selecting the right dealer was also challenging for consumers as dealer reputations were historically based primarily on word-of-mouth. The lack of clear, unbiased, transparent information made it difficult for consumers to effectively compare vehicles, find the vehicle that best suited their needs and transact with well-regarded dealers.

Dealer Challenges

The economics of dealerships depend largely on sales volume, gross margin, and customer acquisition efficiency. To achieve a high return on their marketing investments, dealers must find in-market consumers; yet because car purchases are infrequent, only a small percentage of consumers are shopping for a car at any given point in time. Traditional marketing channels, including television, radio, and newspaper, can effectively target locally but are inefficient in reaching the small percentage of consumers who are actively in the market to buy a car. In addition, used car pricing is fluid because it is based on rapidly shifting supply and demand dynamics. Dealers need to find ways to manage constantly changing inventory and adjust pricing strategies to adapt to frequently changing market conditions.

Our Strengths

We believe that our competitive advantages are based on the following key strengths:

Trusted Marketplace for Consumers. We provide consumers with unbiased information, intuitive search results, and other tools that empower them to find “Great Deals from Top-Rated Dealers.” We offer the largest online selection of new and used car listings of any major U.S. online automotive marketplace. We aggregate and analyze these listings using proprietary technology and data along with innovative data analytics to create a differentiated automotive search experience for consumers. We believe that providing a transparent consumer experience with unbiased information has instilled greater trust in us among our users, helping us become the most visited online automotive marketplace in the United States according to Comscore. In 2018, we experienced over 91.8 million average monthly sessions in the United States. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Key Business Metrics” for how we define average monthly sessions. We believe this user traffic, an indicator of consumer satisfaction and engagement, is critical to our marketplace success and will continue to strengthen our market position.

Proprietary Search Algorithms and Data-Driven Approach. We have built an extensive repository of data on cars, prices, dealers, and the interactions between consumers and dealers that is the result of over eight years of data aggregation and regression modeling. Our proprietary search algorithms and data analytics allow us to use this valuable data to bring greater transparency to our platform. The primary product of this analysis is our determination of a used car’s IMV, which, in addition to Dealer Rating, drives our Deal Rating. We calculate IMV by applying more than 20 ranking signals and more than 100 normalization rules to millions of data points, including the make, model, trim, features, condition, history, geographic location, and mileage of the car. The growing volume of connections between consumers and dealers on our platform allows us to continually improve the accuracy of our IMV, Dealer Ratings, and used car search results sorted by Deal Rating. We apply the knowledge gained from analyzing this ever-growing data set to build new features for our consumers and products for our dealers and to more efficiently launch marketplaces in new countries.

Strong Value Proposition to Dealers. We believe that our marketplace offers an efficient customer acquisition channel for dealers, helping them achieve attractive returns on their marketing spend with us. We provide our dealer base with connections to prospective car buyers; most of these connections have historically been for used cars. We define connections as interactions between consumers and dealers in our marketplace through phone calls, email, managed text and chat, and clicks to access the dealer’s website or map directions to the dealership. We provide all dealers with tools that are informed by real-time market conditions that help them merchandise and sell their cars, and our paying dealers get access to additional valuable information from our Pricing Tool and Market Analysis tool. Our strong value proposition to the dealer community is evidenced by our 23% growth in average annual revenue per subscribing dealer, or AARSD, in the United States in 2018 compared to 2017.

Network Effects Driven by Scale. Having engaged with the majority of dealers and built one of the largest consumer audiences among automotive marketplaces in the United States, we believe that our scale creates powerful network effects that reinforce the competitive strength of our business model. Our large consumer audience increases our appeal to dealers and incentivizes more dealers to subscribe to our Enhanced or Featured Listing products to access the numerous benefits unavailable to non-paying dealers. Having more paying dealers in our marketplace provides consumers with more dealer information and methods to contact those dealers. More consumers and connections drive greater value and a higher return to paying dealers’ marketing spend on our platform. Driven by these network effects, we continue to amass more data, which we use to further strengthen our search algorithms, the utility of analysis complementing each listing, the quality of our user experience, and the value of connections between consumers and dealers.

Attractive Financial Model. We have a strong track record of revenue growth, profitability, and capital efficiency. We generated revenue of \$454.1 million in 2018, \$316.9 million in 2017, and \$198.1 million in 2016, representing year-over-year increases of 43% in 2018 and 60% in 2017. A significant portion of our revenue is recurring due to the subscription nature of our products. In 2018, 2017, and 2016, dealer marketplace Listing and Dealer Display advertising subscription revenue, and Search Engine Marketing, Social Media Advertising and Retargeting, which we consider to be recurring revenue, comprised 89%, 89% and 86% of total revenue, respectively. Furthermore, our revenue base is highly diversified due to the fragmented nature of the automotive dealer industry. We also have been able to grow and invest in our future growth while improving profitability due to the operating leverage in our business model. On a consolidated basis, while our revenue grew 43% in 2018 and 60% in 2017, our Adjusted EBITDA margin expanded to 11% in 2018 from 8% in 2017 and from 6% in 2016. In the United States, which is our most developed market, we grew our revenue by 42% in 2018 and 57% in 2017 while increasing our income from operations to \$58.4 million in 2018 from \$41.6 million in 2017 and \$27.5 million in 2016.

Founder-Led Management Team with Culture of Innovation. Our founder, Chief Executive Officer and Chairman, Langley Steinert, co-founded and was previously chairman of TripAdvisor, an online marketplace for travel-related content based on the mission of using technology and a data-driven approach to provide transparency for consumers’ travel planning. Led by Mr. Steinert and a management team with extensive experience guiding technology companies in evolving industries, we bring the same commitment to fostering a culture of innovation and delivering data-driven transparency to the automotive market.

Our Products

Consumer Marketplace

We provide consumers an online automotive marketplace where they can search for new and used car listings from our dealers, as well as sell their car in our U.S. marketplace. Through our marketplace, we provide consumers with information that helps them find the most relevant car for their needs. A user accesses our U.S. marketplace through our desktop or mobile-optimized website at cargurus.com or by using our mobile applications. Most users specify whether they are searching for used, certified pre-owned, or new cars and then provide their desired vehicle make and model and their zip code.

Used and Certified Pre-Owned Cars

Using our proprietary search algorithms, we immediately display the search results, ranked by Deal Rating, on a search results page, or SRP. Nearly every used car listing in our marketplace is assigned one of five Deal Ratings: Great Deal, Good Deal, Fair Deal, High Priced, or Overpriced. Deal Rating illustrates how competitive a listing is compared to similar cars sold in the same region in recent history. A listing’s Deal Rating is based primarily upon the IMV of the vehicle and the Dealer Rating of the dealer.

Instant Market Value. IMV is a proprietary algorithm that determines the market value of a used vehicle in a local market and is a key input for determining a vehicle's Deal Rating. The IMV algorithm is the product of over eight years of regression modeling utilizing more than seven million used car data points. IMV takes into account a number of factors, including comparable currently listed and previously sold used cars in the local market and vehicle details including make, model, trim, year, mileage, options, and vehicle history. Our algorithm uses more than 20 ranking signals and more than 100 normalization rules that distill unstructured data from hundreds of sources across thousands of dealers.

Dealer Ratings. Dealer Ratings are derived from user-generated content from our users' experiences with dealers with whom they have connected. To promote high-quality reviews, we require that a user have interacted with the dealer on our site to submit a review. We believe this requirement, together with additional qualification standards, results in a more valuable Dealer Rating. Dealer Rating is an important component of a listing's Deal Rating and as a result can impact the organic search position of a listing.

Search Results Page. In addition to each car's Deal Rating, our SRP provides users with other useful information, including the difference between the listing price and the IMV that we have determined for the car, Time on Site, mileage, Dealer Rating, and, for paying dealers, dealer location. We provide in-depth search filters, including price, mileage, trim, color, options, condition, body style, miles per gallon, seating capacity, vehicle ownership and usage history, seller type, and days on market, among others, which we believe deliver the most comprehensive search capability among major U.S. online automotive marketplaces. We also provide our users with additional features to aid their search, including similar vehicle recommendations, side-by-side vehicle comparisons, expert reviews, and user rankings. Our platform also gives users the ability to save searches and receive alerts that keep them informed of relevant developments in the market, including newly available inventory and price changes to cars they are monitoring.

Vehicle Detail Page. If a user clicks on one of the listings on the SRP, the user is taken to that listing's vehicle detail page, or VDP. VDPs are designed to provide extensive photos and a comprehensive description of the vehicle, dealer name, address, and dealership information for paying dealers, detailed dealer reviews, methods to contact the dealer for paying dealers, payment calculators, and helpful information about the vehicle, including:

- *Price History.* Changes to a vehicle's price on our site. We also offer price change alerts to consumers on searches they have saved, which allow them to respond quickly to changes in the market.
- *Time on Site.* Length of time a vehicle has been on our site and how many users have saved the vehicle to their list of favorite listings, indicators of the likely demand for the car.
- *Vehicle History.* Title check, accident check, number of owners, and fleet status of the vehicle, giving consumers data that helps them better understand the car's condition.

New Cars

Search results for new car listings are sorted by price of inventory matching the user's search, with the lowest priced listings sorted first. Our new car VDPs include our Dealer Rating and many of the other features of our used car listings, such as Price History and Time on Site. Deal Rating is not applicable to new car listings because it utilizes data not relevant to new cars. Instead, we analyze data on manufacturers' suggested retail prices, or MSRPs, and recent sales of similar new vehicles, accounting for trade-ins, incentives, and other factors that can affect the price of a new car, to provide users with comparative price information.

Sell My Car

We also allow our consumer users to list their cars for free in our marketplace. Our Sell My Car offering enables individual car owners to easily merchandise their vehicles, determine an appropriate selling price with our proprietary price guidance, and manage their listings and communications with prospective buyers among our audience. We offer services to facilitate securing financing, processing payment, titling, and other aspects of the private-sale transaction. If a car is sold using these transaction-facilitation services, we collect a fee from the selling consumer.

Dealer Marketplace

Our marketplace connects dealers to a large audience of informed and engaged consumers. We offer three types of marketplace Listing products to dealers: Basic Listing, which is free, and Enhanced or Featured Listing, each of which requires a paid subscription. We price our Enhanced and Featured Listing products as a monthly, quarterly, semiannual, or annual subscription based on the dealer's inventory size, region, and our assessment of the return on investment, or ROI, our solution will provide them.

- *Basic Listing.* Basic Listing allows non-paying dealers to list their inventory in our marketplace anonymously. Consumers can contact these dealers only through an anonymous, CarGurus-branded email address so the dealer does not receive any of the consumer's personal contact information from our platform. We do not display the name, address, website URL, or phone number of any non-paying dealers on our websites.
- *Enhanced Listing.* Enhanced Listing provides dealers with a higher volume and quality of connections to consumers. Dealers that subscribe to Enhanced Listing gain the opportunity to connect with consumers directly through email, phone, and managed text and chat. Our platform allows paying dealers to provide a link to their website, dealership branding and information such as name, address, and hours of operation, and map directions to their dealership on VDPs, helping consumers easily contact or visit them, which we believe results in increased local brand awareness and walk-in traffic.
- *Featured Listing.* A dealer that pays the premium subscription rate for our Featured Listing product receives all of the benefits of the Enhanced Listing product, as well as promotion of their Great Deal, Good Deal, and Fair Deal inventory in a clearly labeled section at the top of the search results page. This premium placement for Featured listings generates increased connection volume relative to Enhanced Listing.

Dealer Dashboard

Basic, Enhanced, and Featured Listing dealers all have access to the following Dealer Dashboard features and tools:

- *Performance Summary.* Provides dealers with real-time and historical data concerning the connections and consumer exposure they have received in our marketplace and through our digital marketing products. This enables dealers to analyze connections and SRP and VDP views at a granular level to inform the dealer's sales and merchandising efforts.
- *Dealer Insights.* Provides pricing analysis of the dealer's inventory, as well as a summary of a vehicle's missing information such as price, photos, or trim. This information helps dealers better merchandise their vehicles.
- *User Review Management.* Allows dealers to track and manage their dealership reviews from our users. Dealers can respond to users, report potentially fraudulent reviews, and publish positive reviews to social media platforms for broader exposure.

Enhanced and Featured Listing dealers also have access to the following additional features and tools:

- *Pricing Tool.* Helps dealers evaluate the impact of pricing changes for each used vehicle in their inventory and the resulting impact on the car's Deal Rating, empowering dealers to make informed pricing decisions based on market data in their local area.
- *Market Analysis.* Informs dealers of local market trends in used cars, such as the most searched makes and models in their local market. This information helps dealers align with local consumer preferences and inform strategies for increasing inventory turnover and efficient vehicle acquisition.

Dealer Digital Marketing and Customer Acquisition Products

In addition to listing cars in our marketplace through our Listing products, we also provide all dealers with a web widget that allows them to place Deal Rating Badges, which show our Deal Rating for cars that have been rated as a Great Deal, Good Deal, or Fair Deal, on their own website. Our Deal Rating serves as trusted, third-party validation on their website.

We offer Enhanced and Featured Listing dealers the following additional advertising and customer acquisition products and enhancements:

- *Dealer Display.* Dealers are able to buy display advertising that appears in our marketplace and on other sites on the internet to build brand awareness. Advertisements can be targeted by geography, search history, and a number of other targeting factors, allowing dealers to increase their visibility with relevant consumers and drive consumers to the dealer's own website.
- *Dealer Search Engine Marketing, Social Media Advertising, and Retargeting.* Leveraging the capabilities we have developed for our own algorithmic traffic acquisition, we offer a product that delivers search engine marketing, or SEM, social media advertising, and retargeting to programmatically drive qualified traffic to dealer websites. Utilizing algorithmic bidding strategies and automated keyword list management, we help dealers to optimize traffic acquisition.
- *Delivery.* A dealer that pays for our Listings product can add a feature to expand the visibility of its inventory in the search results beyond its local market.

Auto Manufacturer and Other Advertiser Products

Our platform offers auto manufacturers and others the ability to purchase display advertising on our site to execute targeted marketing strategies:

- *Brand Reinforcement.* We allow auto manufacturers to buy advertising on our site and target consumers based on the make, model, and zip code of the cars that a specific consumer is searching for, in order to increase exposure to interested consumers.
- *Category Sponsorship.* To address evolving priorities influenced by industry dynamics, seasonality, and other factors, we offer the ability to sponsor exclusively prominent high traffic pages on our site, such as the New Car front page, Used Car front page, and Research Center.
- *Automobile Segment Exclusivity.* To support the introduction of new models or the success of existing models, we allow manufacturers to target specific automobile segments, such as SUV, sedan, hybrid, luxury, truck, and minivan.
- *Consumer Segment Exposure.* Through our platform, auto manufacturers can target consumers both on our site and on third-party sites based on various parameters, including estimated household income and vehicle specifications, such as make or model, and zip codes.

Marketing

Our marketing initiatives aim to drive brand awareness and engagement among consumers and dealers and to position us as a trusted online automotive marketplace.

Consumer Marketing

We have built our audience on the strength of our user experience, and we remain focused on delivering an engaging consumer marketplace. The strength of the consumer experience that we offer is one of our most powerful marketing tools. By providing an intuitive search experience in our marketplace and relevant content, updates, and tools to consumers during their car search, we believe that the users who comprise our large and engaged audience provide informal endorsements to other consumers, more powerful than most marketing messages.

Historically, our consumer marketing efforts have been focused primarily on algorithmic traffic acquisition. We employ a team of engineers and data scientists that optimizes our user acquisition through search engines, social media, and other digital marketing channels and has tested over 1 billion keywords on various search engines. We believe our expertise in this area constitutes a competitive advantage over less sophisticated competitors and those who outsource these capabilities.

We augment our marketing efforts with brand-building investments in broadcast media, such as television and online video. Our brand awareness is currently lower than many other major U.S. online automotive marketplaces in the United States, despite our large monthly audience and high user engagement. We believe that as a result of our trusted product, audience engagement, and relatively low brand awareness, we are well-positioned to strengthen our brand by continuing to invest in broadcast media.

Our vehicle listing data, on-site user behavior, connections between consumers and dealers, and opinion data from our users create significant opportunities for us to develop and publish car shopping insights. We consistently gain earned media coverage in national, regional, and trade press outlets as well as social channels by leveraging our proprietary data to inform newsworthy content.

Dealer Marketing

The primary goals of our dealer marketing initiatives are to acquire dealers not yet in our marketplace, convert non-paying dealers into paying dealers, retain our existing paying dealers, and expand annual subscription revenues from our paying dealers. Our dealer marketing efforts aim to:

- *Educate Dealers on the Quality of Our Audience and Attractive ROI.* We educate dealers on our industry-leading monthly visits, our strong user engagement, and the large number of connections that we facilitate through our marketplace. We also highlight to dealers how unique features of our platform, such as our intuitive user interface and our proprietary technology and data analytics, yield consumers that we believe are more informed and better prepared to purchase at the dealership, which can lead to a higher ROI for the dealers' marketing spend.
- *Provide Best Practices to Assist Dealers in Becoming Successful in Our Marketplace.* We provide ongoing communications through webinars, white papers, testimonials, and videos, which show dealers how to use our products to position their inventory for success on our platform. We maintain consistent communication with dealers by email and events to ensure awareness of recent product updates and provide custom account management.
- *Provide Thought Leadership that Educates Dealers on Marketplace Trends.* We generate insightful content on market trends and best practices in digital advertising that are shared through webinars, dealer forums, dealer advisory councils, and our participation in industry conferences and events.

Sales

Our sales team is responsible for bringing dealers onto our marketplace as paying or non-paying dealers. We have built an efficient inside sales and account management team of over 300 employees worldwide who sell our marketplace products to franchise and independent dealers. We have built a field sales team that works with strategic franchise and national dealership groups in large metropolitan areas. In addition, we have advertising sales employees based in Cambridge, Massachusetts; Detroit, Michigan; Los Angeles, California; and certain foreign locations.

We have a comprehensive dealer account management process to assist dealers in becoming successful in our marketplace. We assign a Customer Success Associate to every new paying dealer to assist with onboarding and integration with any relevant software systems. The designated Customer Success Associate spends time educating dealers on a range of topics, including effectively using the Dealer Dashboard and tracking sales, and measuring ROI for their marketing spend. After the onboarding period, a Dealer Relations Account Manager is designated to assist the dealer in utilizing our tools and maximizing ROI from our offerings, including optimizing inventory acquisition, effectively pricing vehicles, vehicle merchandising, and keeping inventory up to date with complete vehicle information. We believe this active communication with our dealers fosters customer satisfaction and increases dealer and customer retention.

Culture and Employees

Our company culture has developed out of our data-driven and innovative approach to the automotive market. We leverage data to drive innovation across all facets of our business and continuously optimize our products and processes to serve our consumers, dealers, advertisers, and partners. Our approach emphasizes original thought, impact, and collaboration across our organization, and we recognize and award employees who drive positive impact across these constituencies. We encourage collaboration across our entire workforce and invest in creating a work environment that facilitates partnership among our employees. In that spirit, we have identified our core values as follows:

- **We are pioneering.** From the beginning, we set out to radically change how people buy and sell cars. We tackle difficult problems head on. We are curious. We are risk takers. We embrace change even if it's uncomfortable.
- **We are transparent.** We believe transparency is the foundation of trust and enables better decision making. We communicate clearly and honestly. We deliver unbiased guidance. Our products, services and company culture are built on these principles.
- **We are data-driven.** We rely on data, not hunches, to make decisions. We listen to our instincts but we validate through rapid testing, learning and optimizing. We translate complex data into actionable insights for our users, our customers and our people.
- **We are collaborative.** We celebrate our individual strengths and perspectives but know that our success requires teamwork. We partner, we listen and we leverage feedback from each other, our users and our customers.
- **We move quickly.** We believe there's power in speed. We iterate quickly and often, continuously improving as we go. We are not afraid to break things. If we fail, we do it fast, learn from it and move on.
- **We have integrity.** We act responsibly and consider the impact of our actions on each other, our partners and the world around us. We believe empathy, respect and fairness are essential. We set high ethical standards and expect principled leadership from our people.

We have won a number of awards recognizing our strong culture, including *Boston Business Journal's* "Best Places to Work" for four years in a row from 2015 to 2018, *Boston Globe's* "Top Place to Work" for four of the past five years in 2014, 2015, 2016 and 2018 and the Mass TLC Company of the Year award in 2018.

As of December 31, 2018, we had 732 full-time employees, 47 of whom were based outside the United States. None of our employees is represented by a labor union or covered by a collective bargaining agreement. We have not experienced any work stoppages, and we consider our relations with our employees to be good.

Technology and Product Development

We are a technology company focused on innovative, actionable data analysis. We design our mobile and web products to create an unbiased, transparent experience for both consumers and dealers. We believe in rapid development and frequent updates and have internal tools and automation that allow us to efficiently evolve our products. Our software is built using a combination of internally developed software, third-party software and services, and open source software.

Our Search Technology

Our search and ranking technology is served by a proprietary in-memory search index solution that is scalable, fast, and extensible, allowing us to expand more easily into new markets, as demonstrated by our international marketplace launches. We have highly flexible interfaces that allow dealers to add their inventory to our index without changing data or formats, enabling us to quickly integrate hundreds of inventory sources with minimal effort and easily support inventory growth.

Our Mobile Technology

We have designed our marketplace to appeal to mobile users by developing our products with a mobile-first mindset. All of our search results pages use a single-page application type approach to eliminate page reloads and improve responsiveness. We also use techniques, including predictive pre-fetching and infinite scrolling, to load content onto a user's mobile device more efficiently.

Our Integrations

We make available several application program interfaces and web widgets that integrate with customer relationship management and inventory management solutions, among other platforms. These integrations allow dealers to incorporate designated data and tools into the fabric of their marketing and customer engagement strategies. For example, our Deal Rating Badges are used on over one thousand websites and allow our Deal Rating feature to be promoted across the internet.

Infrastructure

Our development servers and U.S. website are hosted at third-party data centers near Boston, Massachusetts. Our European websites are hosted on a third-party cloud computing service near London, England. We use third-party content distribution networks to cache and serve many portions of our sites at locations across the globe. We monitor and test at the application, host, network, and full site levels to maintain availability and promote performance. We use third-party cloud computing services for many data processing jobs and backup/recovery services.

Competition

We face competition to attract consumers and paying dealers to our marketplace and to attract advertisers to purchase our advertising products and services. Our competitors offer various marketplaces, products, and services that compete with us. Some of these competitors include:

- major U.S. online automotive marketplaces: AutoTrader.com, Cars.com, and TrueCar.com;
- U.S. online automotive content publishers, such as Edmunds.com, KBB.com and Carfax.com;
- online automotive marketplaces and websites in international markets;
- internet search engines;
- digital marketing providers;
- peer to peer marketplaces; and
- sites operated by individual automobile dealers.

Competition for Consumers and Dealers

We compete for consumer visits with other online automotive marketplaces, free listing services, general search engines, and dealers' websites. We compete for consumers primarily on the basis of the quality of the consumer experience. We believe we compete favorably on user experience due to the number of our vehicle listings, the unbiased transparency of the information we provide on cars, prices, and dealers, the intuitive nature of our user interface, and our leading mobile user experience, among other factors.

We compete for dealers' marketing spend with offline customer acquisition channels, other online automotive marketplaces, dealers' own customer acquisition efforts on search engines, and other internet sites that attract consumers searching for vehicles. We compete primarily on the basis of the ROI that our marketplace provides. We believe we compete favorably due to our large user audience, high user engagement, and the volume and quality of connections we provide to well-informed consumers, which results in an attractive ROI for dealers.

Competition for Advertisers

We compete for a share of advertisers' total marketing budgets against media sites, websites dedicated to helping consumers shop for cars, major internet portals, search engines, and social media sites, among others. We also compete for a share of advertisers' overall marketing budgets with traditional media, such as television, radio, magazines, newspapers, automotive guide publications, billboards, and other offline advertising channels. We compete for advertising spend based on the marketing ROI that our marketplace provides. We believe we compete favorably due to our large user audience size, high user engagement, and the effectiveness and relevance of our advertising products.

Intellectual Property

We protect our intellectual property through a combination of patents, copyrights, trademarks, service marks, domain names, trade secret protections, confidentiality procedures, and contractual restrictions.

We have three pending U.S. patent applications. These applications cover proprietary technology that relates to various functionalities on our platform, generally in connection with pricing, ranking and detecting fraud in online listings. We intend to pursue additional patent protection to the extent we believe it would be beneficial to our competitive position.

We have a number of registered and unregistered trademarks. We registered “CarGurus,” the CarGurus logo, the CG logo, and related marks, as trademarks in the United States and certain other jurisdictions. We pursue additional trademark registrations to the extent we believe doing so would be beneficial to our competitive position.

We are the registered holder of several domestic and international domain names that include “CarGurus” and variations of our name.

In addition to the protection provided by our intellectual property rights, we enter into confidentiality and proprietary rights agreements with our employees and relevant consultants, contractors, and business partners. We control the use of our proprietary technology and intellectual property through provisions in contracts with our customers and partners and our general and product-specific terms of use on our websites.

Regulatory

Various aspects of our business are, may become, or may be viewed by regulators from time to time as subject, directly or indirectly, to U.S. federal, state, local and foreign laws and regulations. In particular, the advertising and sale of new or used motor vehicles is highly regulated by the states and jurisdictions in which we do business. Although we do not sell motor vehicles and we believe that vehicle listings on our site are not themselves advertisements, state regulatory authorities or third parties could take the position that some of the laws or regulations applicable to dealers or to the manner in which motor vehicles are advertised and sold generally are directly applicable to our business. These advertising laws and regulations, which often originated decades before the emergence of the internet, are frequently subject to multiple interpretations, are not uniform across jurisdictions, sometimes impose inconsistent requirements with respect to new or used motor vehicles, and the manner in which they should be applied to our business model is not always clear. Regulators or other third parties could take, and on some occasions have taken, the position that our marketplace or related products violate applicable brokering, bird-dog, consumer protection, or advertising laws or regulations.

In order to operate in this regulated environment, we develop our products and services with a view toward appropriately managing the risk that our regulatory compliance, or the regulatory compliance of the dealers whose inventory is listed on our websites, could be challenged.

We consider applicable advertising and consumer protection laws and regulations in designing our products and services. With respect to paid advertising, other than display advertising and Featured Listings, we believe that most of the content displayed on the websites we operate does not constitute paid advertising for the sale of motor vehicles. Nevertheless, we endeavor to design the content in a manner that would comply with relevant advertising regulations and consumer protection laws if, and to the extent that, the content is considered to be vehicle sales advertising.

Our websites and mobile applications enable us, dealers, and users to send and receive text messages and other mobile phone communications, which requires us to comply with the Telephone Consumer Protection Act, or TCPA, in the U.S. The TCPA, as interpreted and implemented by the Federal Communications Commission and federal and state courts, imposes significant restrictions on utilization of telephone calls and text messages to residential and mobile telephone numbers as a means of communication, particularly when the prior express consent of the person being contacted has not been obtained.

In addition, we are subject to numerous federal, national, state, and local laws and regulations in the United States and around the world regarding privacy and the collection, processing, storage, sharing, disclosure, use, cross-border transfer, and protection of personal information and other data. While the scope of these laws and regulations is changing and remains subject to differing interpretations, we seek to comply with industry standards and all applicable laws, policies, legal obligations, and industry codes of conduct relating to privacy and data protection. We are also subject to the terms of our privacy policies and privacy-related obligations to third parties.

Corporate Information

We were originally organized on November 10, 2005 as a Massachusetts limited liability company under the name “Nimalex LLC.” Effective July 15, 2006, we changed our name to “CarGurus LLC.” On June 26, 2015, we converted into a Delaware corporation and changed our name to “CarGurus, Inc.”

Our principal executive offices are located at 2 Canal Park, 4th Floor, Cambridge, Massachusetts 02141, and our telephone number is (617) 354-0068. Our U.S. website is www.cargurus.com. Information that is contained on, or that can be accessed through, our websites is not incorporated by reference into this Annual Report on Form 10-K, and you should not consider information on our websites to be part of this Annual Report on Form 10-K.

CarGurus, the CarGurus logo, and other trademarks or service marks of CarGurus appearing in this Annual Report on Form 10-K are the property of CarGurus, Inc. Trade names, trademarks, and service marks of other companies appearing in this Annual Report on Form 10-K are the property of their respective holders. We have omitted the ® and ™ designations, as applicable, for the trademarks used in this Annual Report on Form 10-K.

Additional Information

The following filings are available on our investor relations website after we file them with the Securities and Exchange Commission, or the SEC: Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Proxy Statements for our annual meetings of stockholders. These filings are also available for download free of charge on our investor relations website. Our investor relations website is located at <http://investors.cargurus.com>. You may obtain copies of these documents by mail from the Public Reference Section of the SEC, 100 F Street, N.E., Room 1580, Washington, D.C. 20549. The SEC also maintains a website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is <https://www.sec.gov>.

We webcast our earnings calls and certain events that we participate in or host with members of the investment community on our investor relations website. Additionally, we provide news and announcements regarding our financial performance, including SEC filings, investor events, press and earnings releases, on our investor relations website. Corporate governance information, including our policies concerning business conduct and ethics, is also available on our investor relations website under the heading “Governance.” No content from any of our websites is intended to be incorporated by reference into this Annual Report on Form 10-K or in any other report or document we file with the SEC, and any reference to our websites is intended to be an inactive textual reference only.

Item 1A. Risk Factors.

Investing in our Class A common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information contained in this report, including “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and related notes, before evaluating our business. Our business, financial condition, operating results, cash flow, and prospects could be materially and adversely affected by any of these risks or uncertainties. In that event, the trading price of our Class A common stock could decline. See “Special Note Regarding Forward-Looking Statements.”

Risks Related to Our Business and Industry

Our business is substantially dependent on our relationships with dealers, and our subscription agreements with these dealers do not contain long-term contractual commitments. If a significant number of dealers terminate their subscription agreements with us, our business and financial results would be materially and adversely affected.

Our primary source of revenue consists of subscription fees paid to us by dealers for access to enhanced features on our automotive marketplace. Our subscription agreements with dealers generally may be terminated by us with 30 days’ notice and by dealers with 30 days’ notice at the end of the committed term. While we are transitioning many of these dealers to contracts with one-year committed terms, the majority of our contracts with dealers currently provide for one-month committed terms. The contracts do not contain contractual obligations requiring a dealer to maintain its relationship with us beyond the committed term. Accordingly, these dealers may cancel their subscriptions with us in accordance with the terms of their subscription agreements. If a significant number of our paying dealers terminate their subscriptions with us, our business and financial results would be materially and adversely affected.

If we fail to maintain or increase the number of dealers that pay subscription fees to us, or fail to maintain or increase the fees paid to us for subscriptions, our business and financial results would be harmed.

If paying dealers do not experience the volume of consumer connections that they expect during their subscription period, or do not experience the level of car sales they expect from those connections, they may terminate their subscriptions at the conclusion of the committed term or may only be willing to renew their subscriptions at a lower level of fees. Even if dealers do experience increased consumer connections or sales, they may not attribute such increases to our marketplace. If we fail to expand our base of paying dealers or fail to maintain or increase the level of fees that we receive from them, our business and financial results would be materially and adversely affected.

We allow dealers to list their inventory in our marketplace for free; however, dealer identity and contact information are not permitted in such free listings and these dealers do not receive access to the paid features of our marketplace. Many dealers start with us on a non-paying basis and then become paying customers in order to take advantage of the features of our Enhanced or Featured Listing products. If dealers do not subscribe to our paid offerings at the rates we expect, or if a greater than expected number of our paying dealers elect to terminate their subscriptions, our business and financial results would be harmed.

If dealers or other advertisers reduce their advertising spend with us and we are unable to attract new advertisers, our business would be harmed.

A significant amount of our revenue is derived from advertising revenues generated primarily through advertising sales, including for display advertising and retargeting services, to dealers, auto manufacturers, and other auto-related brand advertisers. We compete for this advertising revenue with other online automotive marketplaces and with television, print media, and other traditional advertising channels. Our ability to attract and retain advertisers, and to generate advertising revenue, depends on a number of factors, including:

- our ability to increase the number of consumers using our marketplace;
- our ability to compete effectively for advertising spending with other online automotive marketplaces;
- our ability to continue to develop our advertising products;
- our ability to keep pace with changes in technology and the practices and offerings of our competitors; and
- our ability to offer an attractive ROI to our advertisers for their advertising spend with us.

Our agreements with dealers for display advertising generally include terms ranging from one month to one year and may be terminated by us with 30 days' notice and by dealers with 30 days' notice at the end of the committed term. The contracts do not contain contractual obligations requiring an advertiser to maintain its relationship with us beyond the committed term. Our other advertising contracts, including those with auto manufacturers, are typically for a defined period of time and do not have ongoing commitments to advertise on our websites beyond the committed term. We may not succeed in capturing a greater share of our advertisers' spending if we are unable to convince advertisers of the effectiveness or superiority of our advertising services as compared to alternative channels. If current advertisers reduce or end their advertising spending with us and we are unable to attract new advertisers, our advertising revenue and business and financial results would be harmed.

If we are unable to provide a compelling vehicle search experience to consumers through our platform, the number of connections between consumers and dealers using our marketplace may decline and our business and financial results would be materially and adversely affected.

If we fail to continue to provide a compelling vehicle search experience to consumers, the number of connections between consumers and dealers through our marketplace could decline, which in turn could lead dealers to stop listing their inventory in our marketplace, cancel their subscriptions, or reduce their advertising spend with us. If dealers stop listing their inventory in our marketplace, we may not be able to maintain and grow our consumer traffic, which may cause other dealers to stop using our marketplace. This reduction in the number of dealers using our marketplace would likely adversely affect our marketplace and our business and financial results. As consumers increasingly use their mobile devices to access the internet and our marketplace, our success will depend, in part, on our ability to provide consumers with a robust and user-friendly experience through their mobile devices. We believe that our ability to provide a compelling vehicle search experience, both on the web and through mobile devices, is subject to a number of factors, including:

- our ability to maintain an attractive marketplace for consumers and dealers, including on mobile platforms;
- our ability to continue to innovate and introduce products for our marketplace on mobile platforms;
- our ability to launch new products that are effective and have a high degree of consumer engagement;
- our ability to maintain the compatibility of our mobile applications with operating systems, such as iOS and Android, and with popular mobile devices running such operating systems; and
- our ability to access and analyze a sufficient amount of data to enable us to provide relevant information to consumers, including pricing information and accurate vehicle details.

If the use of our marketplace, particularly on mobile devices, does not continue to grow, our business and operating results would be harmed.

We rely on internet search engines to drive traffic to our websites, and if we fail to appear prominently in the search results, our traffic would decline and our business would be adversely affected.

We depend, in part, on internet search engines such as Google, Bing, and Yahoo! to drive traffic to our websites. The number of consumers we attract to our marketplace from search engines is due in part to how and where our websites rank in unpaid search results. These rankings can be affected by a number of factors, many of which are not under our direct control and may change frequently. For example, when a consumer searches for a vehicle in an internet search engine, we rely on a high organic search ranking of our webpages to refer the consumer to our websites. Our competitors' internet search engine optimization efforts may result in their websites receiving higher search result rankings than ours, or internet search engines could change their methodologies in a way that would adversely affect our search result rankings. If internet search engines modify their search algorithms in ways that are detrimental to us, or if our competitors' efforts are more successful than ours, overall growth in our traffic could slow or our traffic could decline. In addition, internet search engine providers could provide dealer and pricing information directly in search results, align with our competitors, or choose to develop competing products. Search engines may also adopt a more aggressive auction-pricing system for keywords that would cause us to incur higher advertising costs or reduce our market visibility to prospective users. Our websites have experienced fluctuations in search result rankings in the past, and we anticipate fluctuations in the future. Any reduction in the number of consumers directed to our websites through internet search engines could harm our business and operating results.

Any inability by us to develop new products, or achieve widespread consumer and dealer adoption of those products, could negatively impact our business and financial results.

Our success depends on our continued innovation to provide products and services that make our marketplace, websites, and mobile applications useful for consumers and dealers or that otherwise provide value to consumers and dealers. These new products must be widely adopted by consumers and dealers in order for us to continue to attract consumers to our marketplace and dealers to our products and services. Accordingly, we must continually invest resources in product, technology, and development in order to improve the attractiveness and comprehensiveness of our marketplace and its related products and effectively incorporate new internet and mobile technologies into them. These product, technology, and development expenses may include costs of hiring additional personnel, engaging third-party service providers and other research and development activities. In addition, revenue relating to new products is typically unpredictable and our new products may have lower gross margins and higher marketing and sales costs than our existing products. We may also change our pricing models for both existing and new products so that our prices for our offerings reflect the value those offerings are providing to consumers and dealers. Our pricing models may not effectively reflect the value of products to consumers and dealers, and, if we are unable to provide a marketplace and products that consumers and dealers want to use, they may become dissatisfied and instead use our competitors' websites and mobile applications. Without an innovative marketplace and related products, we may be unable to attract additional, unique consumers or retain current consumers, which could affect the number of dealers that become paying dealers and the number of advertisers that want to advertise in our marketplace, which could, in turn, harm our business and financial results.

We may be unable to maintain or grow relationships with data providers, or may experience interruptions in the data they provide, which may create a less valuable or transparent shopping experience and negatively affect our business and operating results.

We obtain data from many third-party data providers, including inventory management systems, automotive website providers, customer relationship management systems, dealer management systems, governmental entities, and third-party data licensors. Our business relies on our ability to obtain data for the benefit of consumers and dealers using our marketplace. For example, our success in international markets is dependent in part upon our ability to obtain and maintain inventory data and other vehicle information for those markets. The large amount of inventory and vehicle information available in our marketplace is critical to the value we provide for consumers. The loss or interruption of such inventory data or other vehicle information could decrease the number of consumers using our marketplace. We could experience interruptions in our data access for a number of reasons, including difficulties in renewing our agreements with data providers, changes to the software used by data providers, efforts by industry participants to restrict access to data, and increased fees we may be charged by data providers. Our marketplace could be negatively affected if any current provider terminates its relationship with us or our service from any provider is interrupted. If there is a material disruption in the data provided to us, the information that we provide to consumers and dealers using our marketplace may be limited. In addition, the quality, accuracy, and timeliness of this information may suffer, which may lead to a less valuable and less transparent shopping experience for consumers using our marketplace and could materially and adversely affect our business and financial results.

The failure to build and maintain our brand would harm our ability to grow our audience and to expand the use of our marketplace by consumers and dealers.

While we are focused on building our brand recognition, maintaining and enhancing our brand will depend largely on the success of our efforts to maintain the trust of consumers and dealers and to deliver value to each consumer and dealer using our marketplace. If consumers were to believe that we are not focused on providing them with a better automobile shopping experience, our reputation and the strength of our brand may be adversely affected.

Complaints or negative publicity about our business practices, our management team and employees, our marketing and advertising campaigns, our compliance with applicable laws and regulations, the integrity of the data that we provide to consumers, data privacy and security issues, and other aspects of our business, irrespective of their validity, could diminish consumers' and dealers' confidence and participation in our marketplace and could adversely affect our brand. There can be no assurance that we will be able to maintain or enhance our brand, and failure to do so would harm our business growth prospects and operating results.

Portions of our websites enable consumers and dealers using our sites to communicate with one another and other persons seeking information or advice on the internet. Claims of defamation or other injury could be made against us for content posted on our websites. In addition, negative publicity and user sentiment generated as a result of fraudulent or deceptive conduct by users of our marketplace could damage our reputation, reduce our ability to attract new users or retain our current users, and diminish the value of our brand.

While we historically focused our marketing efforts on internet and mobile channels, we have implemented brand-focused campaigns using television, social media and online video and these efforts may not be successful.

As a consumer brand, it is important for us to increase the visibility of our brand with potential users of our marketplace. While we historically focused our marketing efforts on internet and mobile channels, we now advertise through television, social media, online video, and other channels, with the goal of driving greater brand recognition, trust, and loyalty from a broader consumer audience. If our brand-focused campaigns are not successful and we are unable to recover our marketing costs through increases in user traffic and increased subscription and advertising revenue, or if we discontinue our brand marketing campaigns, it could have a material adverse effect on our business and financial results.

Our recent, rapid growth is not indicative of our future growth, and our revenue growth rate will continue to decline in the future.

Our revenue increased to \$454.1 million for the year ended December 31, 2018 from \$316.9 million for the year ended December 31, 2017, representing a 43% increase between such periods, and increased to \$316.9 million for the year ended December 31, 2017 from \$198.1 million for the year ended December 31, 2016, representing a 60% increase between such periods. In the future, our revenue growth rates will continue to decline as we achieve higher market penetration rates, as our revenue increases to higher levels, and as we experience increased competition. As our revenue growth rates decline, investors' perceptions of our business may be adversely affected and the market price of our Class A common stock could decline. In addition, we will not be able to grow as expected, or at all, if we do not accomplish the following:

- increase the number of consumers using our marketplace;
- maintain and expand the number of dealers that subscribe to our marketplace and maintain and increase the fees that they are paying;
- attract and retain advertisers placing advertisements in our marketplace;
- further improve the quality of our marketplace, and introduce high quality new products; and
- increase the number of connections between consumers and dealers using our marketplace

If we fail to expand effectively into new markets, both domestically and abroad, our revenue, business, and financial results will be harmed.

We intend to continue to expand our operations to target new markets, both domestically and abroad, and there can be no assurance our expansion into these new markets will be successful. Our expansion into new markets places us in unfamiliar competitive environments and involves various risks, including the need to invest significant resources and the likelihood that returns on such investments will not be achieved for several years, or possibly at all. In attempting to establish a presence in new markets, we expect, as we have in the past, to incur significant losses in those markets and face various other challenges, such as obtaining and maintaining access to inventory data, competition for consumers and dealers using our marketplace, monetizing dealers, new regulatory environments and laws, different consumer shopping habits than those we are familiar with, and our ability to expand the number of our account managers to cover those new markets. Our current and any future expansion plans will require significant resources and management attention. Furthermore, expansion into international markets may not yield results similar to those we have achieved in the United States.

Our international operations involve risks that are different from, or in addition to, the risks we may experience as a result of our domestic operations, and our exposure to these risks will increase as we expand internationally.

We expect to expand our international operations significantly by continuing to enter new markets and expanding our offerings in new languages. In most international markets, we would not be the first entrant, and our competitors may be more established or otherwise better positioned than we are to succeed. Our competitors may offer services to dealers that make dealers dependent on them, such as hosting dealers' webpages and providing inventory feeds for dealers, which would make it difficult to attract dealers to our marketplace. Dealers may also be parties to agreements with other dealers and syndicates that prevent them from being able to access our marketplace. In addition, we may also face litigation from competitors in new markets. Any of these barriers could impede our expansion into international markets, which could affect our business and potential growth.

In addition to English, we have made portions of our platform available in French, German, Italian, and Spanish, and we will need to make all or portions of our platform available in additional languages as we launch in new countries. We may have difficulty modifying our technology and content for use in non-English speaking markets or fostering new communities in non-English speaking markets. Our ability to manage our business and conduct our operations internationally requires considerable management attention and resources, and is subject to the particular challenges of supporting a rapidly growing business in an environment of multiple languages, cultures, customs, legal and regulatory systems, alternative dispute resolution systems, and commercial infrastructures. Expanding internationally may subject us to new risks or increase our exposure in connection with current risks, including risks associated with:

- recruiting and retaining qualified, multilingual employees, including sales personnel;
- adapting our websites to conform to local automobile shopping expectations;
- increased competition from local websites and periodicals and potential preferences by local populations for local providers;
- compliance with applicable foreign laws and regulations, including different privacy, censorship, and liability standards and regulations, and different intellectual property laws;
- providing solutions in different languages and for different cultures, which may require that we modify our solutions and features so they are culturally relevant in different countries;
- the enforceability of our intellectual property rights;
- credit risk and higher levels of payment fraud;
- compliance with anti-bribery laws, including compliance with the Foreign Corrupt Practices Act and the U.K. Bribery Act;
- currency exchange rate fluctuations;
- foreign exchange controls that might prevent us from repatriating cash earned outside the United States;
- political and economic instability in some countries;
- adverse changes in trade relationships among foreign countries and/or between the United States and such countries;
- double taxation of our international earnings and potentially adverse tax consequences due to changes in the tax laws of the United States or the foreign jurisdictions in which we operate; and
- higher costs of doing business internationally.

We participate in a highly competitive market, and pressure from existing and new companies may adversely affect our business and operating results.

We face significant competition from companies that provide listings, information, lead generation, and car-buying services designed to help consumers shop for cars and to enable dealers to reach these consumers. Our competitors offer various marketplaces, products, and services that compete with us. Some of these competitors include:

- major U.S. online automotive marketplaces: AutoTrader.com, Cars.com, and TrueCar.com;
- other U.S. automotive websites, such as Edmunds.com, KBB.com, and Carfax.com;
- online automotive marketplaces and websites in international markets;
- internet search engines;
- digital marketing providers;
- peer to peer marketplaces; and
- sites operated by individual automobile dealers.

We compete with these and other companies for a share of dealers' overall marketing budget for online and offline media marketing spend. To the extent that dealers view alternative marketing and media strategies to be superior to our marketplace, we may not be able to maintain or grow the number of dealers subscribing to, and advertising on, our marketplace, and our business and financial results may be harmed.

We also expect that new competitors will continue to enter the online automotive retail industry with competing marketplaces, products, and services, which could have an adverse effect on our business and financial results.

Our competitors could significantly impede our ability to expand the number of dealers using our marketplace. Our competitors may also develop and market new technologies that render our existing or future marketplace and associated products less competitive, unmarketable, or obsolete. In addition, if our competitors develop marketplaces with similar or superior functionality to ours, and our web traffic declines, we may need to decrease our subscription and advertising fees. If we are unable to maintain our current pricing structure due to competitive pressures, our revenue would likely be reduced and our financial results would be negatively affected.

Our existing and potential competitors may have significantly more financial, technical, marketing, and other resources than we have, and the ability to devote greater resources to the development, promotion, and support of their marketplaces, products, and services. They may also have more extensive automotive industry relationships than we have, longer operating histories, and greater name recognition. As a result, these competitors may be able to respond more quickly with new technologies and to undertake more extensive marketing or promotional campaigns than we can. Additionally, to the extent that any competitor has existing relationships with dealers or auto manufacturers for marketing or data analytics solutions, those dealers and auto manufacturers may be unwilling to partner with us. If we are unable to compete with these competitors, the demand for our marketplace and related products and services could substantially decline.

In addition, if one or more of our competitors were to merge or partner with another of our competitors, the change in the competitive landscape could adversely affect our ability to compete effectively. Our competitors may also establish or strengthen cooperative relationships with our existing or future data providers, technology partners, or other parties with whom we have relationships, thereby limiting our ability to develop, improve, and promote our solutions. We may not be able to compete successfully against current or future competitors, and competitive pressures may harm our business and financial results.

Our business could be adversely affected if dealer associations or auto manufacturers were to discourage or otherwise deter dealers from subscribing to our marketplace.

Although the dealership industry is highly fragmented, a small number of interested parties have significant influence over the industry. These parties include state and national dealership associations, state regulators, automotive manufacturers, consumer groups, independent dealers, and consolidated dealer groups. If and to the extent these parties believe that dealerships should not enter into or maintain subscription agreements with us, this belief could become shared by dealerships and we may lose a number of our paying dealers.

Furthermore, auto manufacturers may provide their franchise dealers with financial or other marketing support conditioned upon such dealers' adherence to certain marketing guidelines. Auto manufacturers may determine that the manner in which certain of their franchise dealers use our marketplace is inconsistent with the terms of such marketing guidelines, which determination could result in potential or actual loss of the manufacturers' financial or other marketing support to the dealers whose use of our marketplace is deemed objectionable. The potential or actual loss of such marketing support may cause such dealers to cease paying for our paid features, which may adversely affect our ability to maintain or grow the number of our paying dealers.

Dealer closures or consolidations could reduce demand for our products, which may decrease our revenue.

In the past, the number of United States dealers has declined due to dealership closures and consolidations as a result of factors such as global economic downturns. When dealers consolidate, the services they previously purchased separately are often purchased by the combined entity in a lesser quantity or for a lower aggregate price than before, leading to volume compression and loss of revenue. Further dealership consolidations or closures could reduce the aggregate demand for our products and services. If dealership closures and consolidations occur in the future, our business, financial position and results of operations could be materially and adversely affected.

We rely on third-party service providers and strategic partners for many aspects of our business, and any failure to maintain these relationships could harm our business.

Our success will depend upon our relationships with third parties, including our payment processor, our data center hosts, our information technology providers, our data providers for dealer inventory and vehicle information, our human resources information system provider, our billing subscription software provider, our customer relationship management software provider, our financial planning and analysis software provider, our information integration platform providers, our marketing platform providers, our business intelligence and data analytics providers, our search engine and social media advertising providers, our invoice and expense provider, our equity administrator provider, and our general ledger provider, as well as our other strategic partners, including consumer and commercial lenders. If these third parties experience difficulty meeting our requirements or standards, have adverse audit results, violate the terms of our relationship or applicable law, fail to obtain or maintain applicable licenses, or if the relationships we have established with such third parties expire or otherwise terminate, it could make it difficult for us to operate some aspects of our business, which could damage our business and reputation. In addition, if such third-party service providers or strategic partners were to cease operations, temporarily or permanently, face financial distress or other business disruptions, increase their fees, or if our relationships with these providers or partners deteriorate or terminate, we could suffer increased costs and we may be unable to provide consumers with content or provide similar services until an equivalent provider could be found or we could develop replacement technology or operations. In addition, if we are unsuccessful in identifying or finding high-quality partners, if we fail to negotiate cost-effective relationships with them, or if we ineffectively manage these relationships, it could have an adverse impact on our business and financial results.

If we continue to grow rapidly, we may not be able to manage our growth effectively.

We have experienced rapid growth in our headcount and operations, which places substantial demand on management and our operational infrastructure. In addition, with further growth and expansion, our employee base will continue to spread outside of our headquarters in Cambridge, Massachusetts. As we continue to grow, we must effectively integrate, develop, and motivate a large number of new employees, while maintaining the beneficial aspects of our company culture. If we do not manage the growth of our business and operations effectively, the quality of our services and efficiency of our operations could suffer, which could harm our brand, results of operations, and overall business.

We depend on key personnel to operate our business, and if we are unable to retain, attract and integrate qualified personnel, our ability to develop and successfully grow our business could be harmed.

We believe our success has depended, and continues to depend, on the efforts and talents of our executives and employees. Our future success depends on our continuing ability to attract, develop, motivate, and retain highly qualified and skilled employees. Qualified individuals are in high demand, and we may incur significant costs to attract and retain them. In addition, the loss of any of our executive officers or key employees could materially adversely affect our ability to execute our business plan and strategy, and we may not be able to find adequate replacements on a timely basis, or at all. Our executive officers and other employees are at-will employees, which means they may terminate their employment relationships with us at any time, and their knowledge of our business and industry would be extremely difficult to replace. We cannot ensure that we will be able to retain the services of any members of our senior management or other key employees. If we do not succeed in attracting well-qualified employees or retaining and motivating existing employees, our business could be materially and adversely affected.

If we are unable to successfully respond to changes in the market, our business could be harmed.

While our business has grown rapidly as consumers and dealers have increasingly accessed our marketplace, we expect that our business will evolve in ways which may be difficult to predict. For example, we anticipate that over time we may reach a point when investments in new user traffic are less productive and the continued growth of our revenue will require more focus on developing new products for consumers and dealers, expanding our marketplaces into new international markets to attract new consumers and dealers, and increasing our fees for our products. It is also possible that consumers and dealers could broadly determine that they no longer believe in the value of our marketplace. Our continued success will depend on our ability to successfully adjust our strategy to meet the changing market dynamics. If we are unable to do so, our business could be harmed and our results of operations and financial condition could be materially and adversely affected.

We may be subject to disputes regarding the accuracy of Instant Market Value, Deal Rating, Dealer Rating, New Car Price Guidance and other features of our marketplace.

We provide consumers using our marketplace with our proprietary Instant Market Value, or IMV, Deal Rating, and Dealer Rating, as well as other features to help them evaluate vehicle listings, including price guidance for new car listings, or New Car Price Guidance. Revisions to our automated valuation models, or the algorithms that underlie them, may cause the IMV, the Deal Rating, New Car Price Guidance, or other features to vary from our expectations regarding the accuracy of these tools. In addition, from time to time, regulators, consumers, dealers and other industry participants may question or disagree with our IMV, Deal Rating, Dealer Rating or New Car Price Guidance. Any such questions or disagreements could result in distraction from our business or potentially harm our reputation, could result in a decline in consumers' use of our marketplace and could result in legal disputes.

As we acquire other companies or technologies, such activities could divert our management's attention, result in additional dilution to our stockholders, and otherwise disrupt our operations and harm our operating results.

Our success will depend, in part, on our ability to grow our business in response to the demands of consumers, dealers, and other constituents within the automotive industry as well as competitive pressures. In some circumstances, we will do so through the acquisition of complementary businesses and technologies rather than through internal development. The identification of suitable acquisition candidates can be difficult, time-consuming, and costly, and we may not be able to successfully complete identified acquisitions. The risks we face in connection with acquisitions include:

- diversion of management time and focus from operating our business to addressing acquisition integration challenges;
- coordination of technology, product, research, and development, and sales and marketing functions;
- transition of the acquired company's consumers and data to our marketplace and products;
- retention of employees from the acquired company;
- cultural challenges associated with integrating employees from the acquired company into our organization;
- integration of the acquired company's accounting, management information, human resources, and other administrative systems;
- the need to implement or improve controls, procedures, and policies at a business that prior to the acquisition may have lacked effective controls, procedures, and policies;
- potential write-offs of intangibles or other assets acquired in such transactions that may have an adverse effect on our operating results in a given period;
- potential liabilities for activities of the acquired company before the acquisition, including patent and trademark infringement claims, violations of laws, commercial disputes, tax liabilities, and other known and unknown liabilities; and
- litigation or other claims in connection with the acquired company, including claims from terminated employees, consumers, former stockholders, and other third parties.

Our failure to address these risks or other problems encountered in connection with future acquisitions and investments could cause us to fail to realize the anticipated benefits of these acquisitions or investments, cause us to incur unanticipated liabilities, cause us to be reluctant to engage in future transactions, and harm our business generally. Acquisitions could result in dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities, amortization expense, and impairment charges associated with acquired intangible assets or goodwill, any of which could harm our financial condition. Also, the anticipated benefits of any acquisitions may not materialize.

We are subject to a complex framework of federal, state, and foreign laws and regulations, many of which are unsettled, still developing and contradictory, which have in the past, and could in the future, subject us to claims, challenge our business model, or otherwise harm our business.

Various aspects of our business are, may become, or may be viewed by regulators from time to time as subject, directly or indirectly, to U.S. federal, state and local laws and regulations, and to foreign laws and regulations. Failure to comply with such laws or regulations may result in the suspension or termination of our ability to do business in affected jurisdictions, the imposition of significant civil and criminal penalties, including fines or the award of significant damages against us and dealers in class action or other civil litigation, or orders or settlements requiring us to make adjustments to our marketplace and related products and services.

The advertising and sale of new and used motor vehicles is highly regulated by the states in which we do business. Although we do not sell motor vehicles, and although we believe that vehicle listings on our site are not themselves advertisements, state regulatory authorities or third parties could take the position that some of the laws or regulations applicable to dealers or to the manner in which motor vehicles are advertised and sold generally are directly applicable to our business. These advertising laws and regulations are frequently subject to multiple interpretations and are not uniform from state to state, sometimes imposing inconsistent requirements with respect to new or used motor vehicles. If our marketplace and related products are determined to not comply with relevant regulatory requirements, we or dealers could be subject to significant civil and criminal penalties, including fines, or the award of significant damages in class actions or other civil litigation, as well as orders interfering with our ability to continue providing our marketplace and related products and services in certain states. In addition, even absent such a determination, to the extent dealers are uncertain about the applicability of such laws and regulations to our business, we may lose, or have difficulty increasing the number of paying dealers, which would affect our future growth.

If state regulators or other third parties take the position in the future that our marketplace or related products violate applicable brokering, bird-dog, consumer protection, consumer finance or advertising laws or regulations, responding to such allegations could be costly, could require us to pay significant sums in settlements, could require us to pay civil and criminal penalties, including fines, could interfere with our ability to continue providing our marketplace and related products in certain states, or could require us to make adjustments to our marketplace and related products or the manner in which we derive revenue from dealers using our marketplace, any or all of which could result in substantial adverse publicity, termination of subscriptions by dealers, decreased revenues, distraction for our employees, increased expenses, and decreased profitability.

Federal Laws and Regulations

The Federal Trade Commission, or the FTC, has the authority to take actions to remedy or prevent acts or practices that it considers to be unfair or deceptive and that affect commerce in the United States. If the FTC takes the position in the future that any aspect of our business, including our advertising and privacy practices, constitutes an unfair or deceptive act or practice, responding to such allegations could require us to defend our practices and pay significant damages, settlements, and civil penalties, or could require us to make adjustments to our marketplace and related products and services, any or all of which could result in substantial adverse publicity, distraction for our employees, loss of participating dealers, lost revenues, increased expenses, and decreased profitability.

Our platform enables us, dealers, and users to send and receive text messages and other mobile phone communications. The Telephone Consumer Protection Act, or the TCPA, as interpreted and implemented by the Federal Communications Commission, or the FCC, and federal and state courts, imposes significant restrictions on utilization of telephone calls and text messages to residential and mobile telephone numbers as a means of communication, particularly if the prior express consent of the person being contacted has not been obtained. Violations of the TCPA may be enforced by the FCC, by state attorneys general, or by others through litigation, including class actions. Statutory penalties for TCPA violations range from \$500 to \$1,500 per violation, which is often interpreted to mean per phone call or text message. Furthermore, several provisions of the TCPA, as well as applicable rules and orders, are open to multiple interpretations, and compliance may involve fact-specific analyses.

Any failure by us, or the third parties on which we rely, to adhere to, or successfully implement, appropriate processes and procedures in response to existing or future laws and regulations could result in legal and monetary liability, fines and penalties, or damage to our reputation in the marketplace, any of which could have a material adverse effect on our business, financial condition, and results of operations. Even if the claims are meritless, we may be required to expend resources and pay costs to defend against regulatory actions or third-party claims. Additionally, any change to the TCPA or its interpretation that further restricts the way consumers and dealers interact through our platform, or any governmental or private enforcement actions related thereto, could adversely affect our ability to attract customers and could harm our business, financial condition, results of operations, and cash flows.

Federal Antitrust Laws

U.S. federal antitrust laws prohibit, among other things, any joint conduct among competitors that would lessen competition in the marketplace. We believe that we are in compliance with the legal requirements imposed by such antitrust laws. However, a governmental or private civil action alleging the improper exchange of information, or unlawful participation in price maintenance or other unlawful or anticompetitive activity, even if unfounded, could be costly to defend and could harm our business, results of operations, financial condition, and cash flows.

Claims could be made against us under both U.S. and foreign laws, including claims for defamation, libel, invasion of privacy, copyright or trademark infringement, or claims based on other theories related to the nature and content of the materials disseminated by users of our marketplace and portions of our websites. In addition, domestic and foreign legislation has been proposed that could prohibit or impose liability for the transmission over the internet of certain types of information. Our defense against any of these actions could be costly and involve significant time and attention of our management and other resources. If we become liable for information provided by our users and transmitted in our marketplace in any jurisdiction in which we operate, we could be directly harmed and we may be forced to implement new measures to reduce our exposure to this liability.

The foregoing description of laws and regulations to which we are or may be subject is not exhaustive, and the regulatory framework governing our operations is subject to continuous change. As we expand our operations internationally, we are, and we will continue to be, exposed to legal and regulatory risks including with respect to privacy, tax, law enforcement, content, intellectual property, competition, and other matters. The enactment of new laws and regulations or the interpretation of existing laws and regulations, both domestically and internationally, in an unfavorable way may affect the operation of our business, directly or indirectly, which could result in substantial regulatory compliance costs, civil or criminal penalties, including fines, adverse publicity, loss of participating dealers, lost revenues, increased expenses, and decreased profitability. Further, investigations by governmental agencies, including the FTC, into allegedly anticompetitive, unfair, deceptive or other business practices by us or dealers using our marketplace, could cause us to incur additional expenses and, if adversely concluded, could result in substantial civil or criminal penalties and significant legal liability, or orders requiring us to make adjustments to our marketplace and related products and services.

Our business is subject to risks related to the larger automotive industry ecosystem, including consumer demand, global supply chain challenges, and other macroeconomic issues.

Decreases in consumer demand could adversely affect the market for automobile purchases and, as a result, reduce the number of consumers using our platform. Consumer purchases of new and used automobiles generally decline during recessionary periods and other periods in which disposable income is adversely affected. Purchases of new and used automobiles are typically discretionary for consumers and have been, and may continue to be, affected by negative trends in the economy, including: the cost of energy and gasoline; the availability and cost of credit; rising interest rates, which may reduce the demand for consumer credit due to the higher cost of borrowing; reductions in business and consumer confidence; stock market volatility; increased unemployment; and changing trade barriers, including increased tariff rates or custom duties.

Further, in recent years the market for motor vehicles has experienced rapid changes in technology and consumer demands. Self-driving technology, ride sharing, transportation networks, and other fundamental changes in transportation could impact consumer demand for the purchase of automobiles. A reduction in the number of automobiles purchased by consumers could adversely affect dealers and car manufacturers and lead to a reduction in other spending by these groups, including targeted incentive programs.

In addition, our business may be negatively affected by challenges to the larger automotive industry ecosystem, including global supply chain challenges, changes to trade policies, and other macroeconomic issues. For example, the United Kingdom's referendum to exit the European Union, or the EU, commonly referred to as "Brexit", could adversely affect European and global economic or market conditions, contribute to instability in global financial markets, and cause disruptions to and create uncertainty surrounding our business and operations in the United Kingdom. These factors could have a material adverse effect on our business, results of operations, and financial condition.

Making decisions that we believe are in the best interests of our marketplace may cause us to forgo short-term gains in pursuit of potential but uncertain long-term growth.

In the past, we have forgone, and we will in the future continue to forgo, certain expansion or short-term revenue opportunities that we do not believe are in the long-term best interests of our marketplace, even if such decisions negatively impact our results of operations in the short term. For example, we manage the text-chat feature of our websites where consumers can message paying dealers. Our management of this feature has helped improve dealer response times to consumers, which in turn improves the consumer experience. While our management of this feature provides value to both consumers and paying dealers and could be a potential source of short-term revenue for us, we are not currently charging for this feature and are instead focusing on the potential long-term value of this feature to our marketplace and its users. However, this strategy may not result in the long-term benefits that we expect, in which case our user traffic and engagement, business, and financial results could be harmed.

A significant disruption in service on our websites could damage our reputation and result in a loss of consumers, which could harm our business, brand, operating results, and financial condition.

Our brand, reputation, and ability to attract consumers, dealers, and advertisers depend on the reliable performance of our technology infrastructure and content delivery. We may experience significant interruptions with our systems in the future. Interruptions in these systems, whether due to system failures, computer viruses, ransomware, or physical or electronic break-ins, could affect the security or availability of our marketplace on our websites, and prevent or inhibit the ability of dealers and consumers to access our marketplace. For example, past disruptions have impacted our ability to activate customer accounts and manage our billing activities in a timely manner. Such interruptions could also result in third parties accessing our confidential and proprietary information, including our intellectual property. Problems with the reliability or security of our systems could harm our reputation, harm our ability to protect our confidential and proprietary information, result in a loss of consumers and dealers, and result in additional costs.

Substantially all of the communications, network, and computer hardware used to operate our platform is located in the United States near Boston, Massachusetts, and in Europe near London, England. Although we have two locations in the United States and we believe our systems are redundant, there may be exceptions for certain hardware or software. In addition, we do not own or control the operation of these facilities. We also use third-party hosting services to back up some data. Our systems and operations are vulnerable to damage or interruption from fire, flood, power loss, telecommunications failure, terrorist attacks, acts of war, electronic and physical break-ins, computer viruses, earthquakes, and similar events. The occurrence of any of these events could result in damage to our systems and hardware or could cause them to fail. In addition, we may not have sufficient protection or recovery plans in certain circumstances.

Problems faced by our third-party web hosting providers could adversely affect the experience consumers have while using our marketplace. Our third-party web hosting providers could close their facilities without adequate notice. Any financial difficulties, up to and including bankruptcy, faced by our third-party web hosting providers or any of the service providers whose services they use may have negative effects on our business, the nature and extent of which are difficult to predict. If our third-party web hosting providers are unable to keep up with our growing capacity needs, our business could be harmed.

Any errors, defects, disruptions, or other performance or reliability problems with our network operations could cause interruptions in access to our marketplace as well as delays and additional expense in arranging new facilities and services and could harm our reputation, business, operating results, and financial condition.

Although we carry business interruption insurance, it may not be sufficient to compensate us for the potentially significant losses, including the potential harm to the future growth of our business, that may result from interruptions in our service as a result of system failures.

We collect, process, store, transfer, share, disclose, and use consumer information and other data, and our actual or perceived failure to protect such information and data or respect users' privacy could damage our reputation and brand and harm our business and operating results.

Use of some functions of our marketplace involves the storage and transmission of consumers' information, such as IP addresses and contact information of users who connect with dealers and profile information of users who create accounts on our marketplace, and dealers' information. We also process and store personal and confidential information of our vendors, partners and employees. Some of this information may be private, and security breaches could expose us to a risk of loss or exposure of this information, which could result in potential liability, litigation, and remediation costs. For example, hackers could steal our users' profile passwords, names, email addresses, phone numbers, and zip codes. We rely on encryption and authentication technology licensed from third parties to effect secure transmission of such information. Like all information systems and technology, our websites, mobile applications, and information systems are subject to computer viruses, break-ins, phishing attacks, attempts to overload the systems with denial-of-service or other attacks, ransomware, and similar incidents or disruptions from unauthorized use of our computer systems, any of which could lead to interruptions, delays, or website shutdowns, and could cause loss of critical data and the unauthorized disclosure, access, acquisition, alteration, and use of personal or other confidential information. If we experience compromises to our security that result in website or mobile application performance or availability problems, the complete shutdown of our websites or mobile applications, or the loss or unauthorized disclosure, access, acquisition, alteration, or use of confidential information, consumers, customers, advertisers, partners, vendors and employees may lose trust and confidence in us, and consumers may decrease the use of our websites or stop using our websites entirely, dealers may stop or decrease their subscriptions with us, and advertisers may decrease or stop advertising on our websites.

Further, outside parties have attempted and will continue to attempt to fraudulently induce employees, consumers, or advertisers to disclose sensitive information in order to gain access to our information or our consumers', dealers', advertisers' and employees' information. As cyber-attacks increase in frequency and sophistication, our cyber-security and business continuity plans may not be effective in anticipating, preventing and effectively responding to all potential cyber-risk exposures. In addition, because the techniques used to obtain unauthorized access, disable or degrade service, or sabotage systems change frequently, often are not recognized until after being launched against a target, and may originate from less regulated and remote areas around the world, we may be unable to proactively address these techniques or to implement adequate preventative measures.

Any or all of the issues above could negatively impact our ability to attract new consumers and increase engagement by existing consumers, cause existing consumers to curtail or stop use of our marketplace or close their accounts, cause existing dealers and advertisers to cancel their contracts, cause employees to terminate their employment, cause employment candidates to be unwilling to accept employment offers, and or subject us to governmental or third-party lawsuits, investigations, regulatory fines, or other actions or liability, thereby harming our business, results of operations, and financial condition.

There are numerous federal, national, state, and local laws and regulations in the United States and around the world regarding privacy and the collection, processing, storage, sharing, disclosure, use, cross-border transfer, and protection of personal information and other data. These laws and regulations are evolving, are subject to differing interpretations, may be costly to comply with, may result in regulatory fines or penalties, may subject us to third-party lawsuits, may be inconsistent between countries and jurisdictions, and may conflict with other requirements.

We seek to comply with industry standards and are subject to the terms of our privacy policies and privacy-related obligations to third parties. We strive to comply with all applicable laws, policies, legal obligations, and industry codes of conduct relating to privacy and data protection. However, it is possible that these obligations may be interpreted and applied in new ways or in a manner that is inconsistent from one jurisdiction to another and may conflict with other rules or our practices and that new regulations could be enacted. Several proposals have recently become effective or are pending, as applicable, before federal, state, local, and foreign legislative and regulatory bodies that could significantly affect our business, including the General Data Protection Regulation in the EU, or the GDPR, which went into effect on May 25, 2018, and the new California Consumer Privacy Act, which is expected to become effective in January 2020. The GDPR in particular has already required, and may further require, us to change our policies and procedures and, if we are not in compliance, may seriously harm our business. Similarly, Brexit may further require us to change our policies and procedures and, if we are not in compliance, may seriously harm our business. Any failure or perceived failure by us to comply with our privacy policies, our privacy-related obligations to consumers or other third parties, or our privacy-related legal obligations, or any compromise of security that results in the unauthorized release or transfer of sensitive information, which could include personally identifiable information or other user data, may result in governmental investigations, enforcement actions, regulatory fines, litigation, or public statements against us by consumer advocacy groups or others, and could cause consumers and dealers to lose trust in us, which could have an adverse effect on our business. Additionally, if any third party that we share information with experiences a security breach or fails to comply with its privacy-related legal obligations or commitments to us, such matters may put consumer or dealer information at risk and could in turn expose us to claims for damages or regulatory fines or penalties and harm our reputation, business, and operating results.

We may in the future be subject to intellectual property disputes, which are costly to defend and could harm our business and operating results.

We may from time to time face allegations that we have infringed the trademarks, copyrights, patents, and other intellectual property rights of third parties, including from our competitors or non-practicing entities, or may learn of possible infringement to our trademarks, copyrights, patents, and other intellectual property. We could also be subject to lawsuits where consumers and dealers posting content on our websites disseminate materials that infringe the intellectual property rights of third parties. We have encountered lawsuits in the past containing allegations of intellectual property infringement.

Patent and other intellectual property litigation may be protracted and expensive, and the results are difficult to predict and may require us to stop offering some features, purchase licenses, or modify our marketplace and features while we develop non-infringing substitutes or may result in significant settlement costs.

In addition, we use open source software in our platform and will use open source software in the future. From time to time, we may face claims from companies that incorporate open source software into their products, claiming ownership of, or demanding release of, the source code, the open source software, or derivative works that were developed using such software, or otherwise seeking to enforce the terms of the applicable open source license. These claims could also result in litigation, require us to purchase a costly license or require us to devote additional product, technology, and development resources to change our platform or services, any of which would have a negative effect on our business and operating results.

Even if these matters do not result in litigation or are resolved in our favor or without significant cash settlements, these matters, and the time and resources necessary to litigate or resolve them, could harm our business, our operating results, and our reputation.

Failure to adequately protect our intellectual property could harm our business and operating results.

Our business depends on our intellectual property, the protection of which is crucial to the success of our business. We rely on a combination of patent, trademark, trade secret, and copyright law and contractual restrictions to protect our intellectual property. In addition, we attempt to protect our intellectual property, technology, and confidential information by requiring our employees and consultants to enter into confidentiality and assignment of inventions agreements and third parties to enter into nondisclosure agreements as we deem appropriate. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our websites features, software, and functionality or obtain and use information that we consider proprietary.

Competitors may adopt service names similar to ours, thereby harming our ability to build brand identity and possibly leading to user confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks, or trademarks that incorporate variations of the term “CarGurus.” If we are restricted in any way in registering our CARGURUS mark in international markets, it could impact our ability to establish and grow our business in Europe and other countries. Also, while we have registered the CARGURUS and CG logos in the EU and the United Kingdom, as well as the word-mark CARGURUS in the United Kingdom and Spain, we are not able to register the word-mark CARGURUS in the EU as the mark was deemed to be non-distinctive, and thus unregistrable. We may be unable to register CARGURUS, the word-mark, in certain other countries in the EU. If we are unable to register the CARGURUS word-mark in any country, it may limit our ability to challenge unauthorized users of marks that are the same as or similar to CARGURUS.

We currently hold the “CarGurus.com” internet domain name and various other related domain names. The regulation of domain names is subject to change. Regulatory bodies could establish additional top-level domains, appoint additional domain name registrars, or modify the requirements for holding domain names. As a result, we may not be able to acquire or maintain all domain names that use the name CarGurus. In addition, third parties may create copycat or squatter domains to deceive consumers, which could harm our brand, interfere with our ability to register domain names, and result in additional costs.

Confidentiality agreements with employees and others may not adequately prevent disclosure of trade secrets and other proprietary information.

In order to protect our technologies and processes, we rely in part on confidentiality agreements with our employees, independent contractors, and other advisors. These agreements may not effectively prevent disclosure of confidential information, including trade secrets, and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. Others may also independently discover our trade secrets and proprietary information, and in such cases we may not be able to assert our trade secret rights against such parties. To the extent that our employees, contractors, or other third parties with whom we do business use intellectual property owned by others in their work for us, disputes may arise as to the rights to related or resulting know-how and inventions. The loss of confidential information or intellectual property rights, including trade secret protection, could make it easier for third parties to compete with our products. In addition, any changes in, or unexpected interpretations of, intellectual property laws may compromise our ability to enforce our trade secret and intellectual property rights. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain protection of our trade secrets or other proprietary information could harm our business, results of operations, reputation, and competitive position.

We may be unable to halt the operations of websites that aggregate or misappropriate our data.

From time to time, third parties may misappropriate our data through website scraping, robots, or other means and aggregate this data on their websites with data from other companies. In addition, copycat websites may misappropriate data in our marketplace and attempt to imitate our brand or the functionality of our websites. If we become aware of such activities, we intend to employ technological or legal measures in an attempt to halt their operations. However, we may be unable to detect all such activities in a timely manner and, even if we could, technological and legal measures may be insufficient to halt their operations. In some cases, particularly in the case of entities operating outside of the United States, our available remedies may not be adequate to protect us against the impact of the operation of such websites. Regardless of whether we can successfully enforce our rights against the operators of these websites, any measures that we may take could require us to expend significant financial or other resources, which could harm our business, results of operations, and financial condition. In addition, to the extent that such activity creates confusion among consumers or advertisers, our brand and business could be harmed.

We have incurred operating losses in the past and we may generate losses in the future.

We have incurred net operating losses in the past. Although we have experienced significant growth in revenue, our revenue growth rate is likely to continue to decline in the future as a result of a variety of factors. Our international expansion and new product launches may cause our costs to increase in future periods as we continue to expend substantial financial resources to enter into those markets and promote the new products, as applicable. Our costs may also increase due to general administrative expenses, such as legal and accounting expenses related to being a public company. If we fail to increase our revenue or manage these additional costs, we may incur losses in the future.

Complying with the laws and regulations affecting public companies has increased and will continue to increase our costs and the demands on management and could harm our operating results.

As a public company, we are incurring significant legal, accounting, and other expenses that we did not incur as a private company and these expenses are increasing as we are no longer an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, as of December 31, 2018. In addition, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, and rules subsequently implemented by the SEC and the Nasdaq Stock Market, or Nasdaq, impose various requirements on public companies, including requiring certain corporate governance practices. Our management and other personnel expect to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations have increased and will continue to increase our legal, accounting, and financial compliance costs and have made and will continue to make some activities more time consuming and costly. These rules and regulations could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors or our board committees or as executive officers.

In addition, the Sarbanes-Oxley Act requires, among other things, that we assess the effectiveness of our internal control over financial reporting annually and the effectiveness of our disclosure controls and procedures quarterly. In particular, as we are now a large accelerated filer, our independent registered public accounting firm is required to attest to the effectiveness of our internal control over financial reporting, pursuant to Section 404 of the Sarbanes-Oxley Act, or Section 404, and the cost of our compliance with Section 404 has correspondingly increased. Our compliance with applicable provisions of Section 404 requires that we incur substantial accounting expense and expend significant management time on compliance-related issues as we implement additional corporate governance practices and comply with reporting requirements.

We must maintain proper and effective internal controls over financial reporting and any failure to maintain the adequacy of these internal controls may adversely affect investor confidence in our company and, as a result, the value of our Class A common stock could decline.

We are required, pursuant to Section 404 and the related rules adopted by the SEC, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting on an annual basis. This assessment includes disclosure of any material weaknesses identified by our management in our internal control over financial reporting. During the evaluation and testing process, if we identify and fail to remediate one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal controls are effective.

In addition, our independent registered public accounting firm must attest to the effectiveness of our internal control over financial reporting under Section 404. Our independent registered public accounting firm may issue a report that is adverse to us in the event it is not satisfied with the level at which our controls are documented, designed or operating. We may not be able to remediate any future material weaknesses, or to complete our evaluation, testing and any required remediation in a timely fashion. We are also required to disclose significant changes made to our internal control procedures on a quarterly basis. Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management efforts.

Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition or results of operations. If we are unable to assert that our internal control over financial reporting is effective or our independent registered public accounting firm is unable to express an opinion on the effectiveness of our internal control over financial reporting when it is required to issue such opinion, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of our Class A common stock could decline, and we could be subject to sanctions or investigations by Nasdaq, the SEC or other regulatory authorities.

Seasonality may cause fluctuations in our operating results.

Across the retail automotive industry, consumer purchases typically increase through the first three quarters of each year, due in part to the introduction of new vehicle models from manufacturers, and our consumer-marketing spend generally grows accordingly. As consumer purchases slow in the fourth quarter, our rate of marketing spend typically also slows. This seasonality has not been immediately apparent historically due to the overall growth of other operating expenses. As our growth rates begin to moderate, the impact of these seasonality trends on our results of operations could become more pronounced.

We expect our results of operations to fluctuate on a quarterly and annual basis.

Our revenue and results of operations could vary significantly from period to period and may fail to match expectations as a result of a variety of factors, some of which are outside of our control. Our results may vary as a result of fluctuations in the number of dealers subscribing to our marketplace and the size and seasonal variability of our advertisers' marketing budgets. As a result of the potential variations in our revenue and results of operations, period-to-period comparisons may not be meaningful and the results of any one period should not be relied on as an indication of future performance. In addition, our results of operations may not meet the expectations of investors or public market analysts who follow us, which may adversely affect our stock price.

Our management team has limited experience managing a public company.

Members of our management team have limited experience managing a publicly traded company, interacting with public company investors, and complying with the increasingly complex laws pertaining to public companies. Our management team may not successfully or efficiently manage a public company that is subject to significant regulatory oversight and reporting obligations under the federal securities laws and the scrutiny of securities analysts and investors. These obligations and constituents require significant attention from our management team and may divert their attention away from the day-to-day management of our business, which could materially adversely affect our business, financial condition and operating results.

We may require additional capital to pursue our business objectives and respond to business opportunities, challenges, or unforeseen circumstances. If capital is not available to us, our business, operating results, and financial condition may be harmed.

We intend to continue to make investments to support our growth and may require additional capital to pursue our business objectives and respond to business opportunities, challenges, or unforeseen circumstances, including to increase our marketing expenditures to improve our brand awareness, develop new products, further improve our marketplace and existing products, enhance our operating infrastructure, expand internationally and acquire complementary businesses and technologies. Accordingly, we may need to engage in equity or debt financings to secure additional funds. However, additional funds may not be available when we need them on terms that are acceptable to us or at all. Volatility in the credit markets may also have an adverse effect on our ability to obtain debt financing.

If we raise additional funds through further issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences, and privileges superior to those of holders of our Class A common stock. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to pursue our business objectives and to respond to business opportunities, challenges, or unforeseen circumstances could be significantly limited, and our business, operating results, financial condition, and prospects could be adversely affected.

Changes in applicable tax law could negatively affect our business, results of operations and financial condition.

We are subject to taxation in the United States. On June 21, 2018, the United States Supreme Court issued its decision in *South Dakota v. Wayfair, Inc.*, the Wayfair Decision. The Wayfair Decision overturned prior case law that held that out-of-state merchants were not required to collect sales taxes unless they had a physical presence in the buyer's state. Although we currently believe that the Wayfair Decision is unlikely to have a material effect on our business, it has created uncertainty over sales tax liability, and could precipitate reactions by legislators, regulators and courts that could adversely increase our tax administrative costs and tax risk, and negatively affect our overall business, results of operations and financial condition.

Risks Related to Our Class A Common Stock

Our founder controls a majority of the voting power of our outstanding capital stock, and, therefore, has control over key decision-making and could control our actions in a manner that conflicts with the interests of other stockholders.

Primarily by virtue of his holdings in shares of our Class B common stock, which has a ten-to-one voting ratio compared to our Class A common stock, Langley Steinert, our founder, Chief Executive Officer and Chairman, is able to exercise voting rights with respect to a majority of the voting power of our outstanding capital stock and therefore has the ability to control the outcome of matters submitted to our stockholders for approval, including the election of directors and any merger, consolidation, or sale of all or substantially all of our assets. This concentrated control could delay, defer, or prevent a change of control, merger, consolidation, or sale of all or substantially all of our assets that our other stockholders support, or conversely this concentrated control could result in the consummation of such a transaction that our other stockholders do not support. This concentrated control could also discourage a potential investor from acquiring our Class A common stock, which has limited voting power relative to the Class B common stock, and might harm the trading price of our Class A common stock. In addition, Mr. Steinert has the ability to control the management and major strategic investments of our company as a result of his positions as our Chief Executive Officer and Chairman, and his ability to control the election or replacement of our directors. As a board member and officer, Mr. Steinert owes a fiduciary duty to our stockholders and must act in good faith in a manner he reasonably believes to be in the best interests of our stockholders. If Mr. Steinert's status as an officer and director is terminated, his fiduciary duties to our stockholders will also terminate, but his voting power as a stockholder will not be reduced as a result of such termination unless such termination is either made voluntarily by Mr. Steinert, due to Mr. Steinert's death, or if the sum of the number of shares of our capital stock held by Mr. Steinert, by any Family Member of Mr. Steinert, and by any Permitted Entity of Mr. Steinert (as such terms are defined in our amended and restated certificate of incorporation), assuming the exercise and settlement in full of all outstanding options and convertible securities and calculated on an as-converted to Class A common stock basis, is less than 9,091,484 shares. As a stockholder, even a controlling stockholder, Mr. Steinert is entitled to vote his shares in his own interests, which may not always be aligned with the interests of our other stockholders.

We believe that Mr. Steinert's continued control of a majority of the voting power of our outstanding capital stock is beneficial to us and is in the best interests of our stockholders. In the event that Mr. Steinert no longer controls a majority of the voting power, whether as a result of the disposition of some or all his shares of Class A or Class B common stock, the conversion of the Class B common stock into Class A common stock in accordance with its terms, or otherwise, our business or the trading price of our Class A common stock may be adversely affected.

The multiple class structure of our common stock has the effect of concentrating voting control with our founder and certain other holders of our Class B common stock, which will limit or preclude the ability of our stockholders to influence corporate matters.

Our Class B common stock has ten votes per share and our Class A common stock has one vote per share. Stockholders who hold shares of Class B common stock, including certain of our executive officers, employees, and directors and their affiliates, together hold a substantial majority of the voting power of our outstanding capital stock. Because of the ten-to-one voting ratio between our Class B and Class A common stock, the holders of our Class B common stock collectively control a majority of the combined voting power of our common stock and therefore are able to control all matters submitted to our stockholders for approval so long as the shares of Class B common stock represent at least 9.1% of all outstanding shares of our Class A and Class B common stock. This concentrated control will limit or preclude the ability of our stockholders to influence corporate matters for the foreseeable future.

Transfers by holders of Class B common stock will generally result in those shares converting into Class A common stock, subject to limited exceptions, such as certain transfers effected for estate planning or charitable purposes. The conversion of Class B common stock into Class A common stock will have the effect, over time, of increasing the relative voting power of those holders of Class B common stock who retain their shares in the long term. If, for example, Mr. Steinert retains a significant portion of his holdings of Class B common stock for an extended period of time, he could, in the future, continue to control a majority of the combined voting power of our outstanding capital stock.

The price of our Class A common stock has been and may continue to be volatile and the value of our stockholders' investment in our stock could decline.

The trading price of our Class A common stock has been and may continue to be volatile and fluctuate substantially. The trading price of our Class A common stock depends on a number of factors, including those described in this "Risk Factors" section, many of which are beyond our control and may not be related to our operating performance. Factors that could cause fluctuations in the trading price of our Class A common stock include the following:

- price and volume fluctuations in the overall stock market from time to time;
- changes in operating performance and stock market valuations of other technology companies generally, or those in our industry in particular;
- sales of shares of our Class A common stock by us or our stockholders;
- failure of securities analysts to maintain coverage of us, changes in financial estimates by any securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- announcements by us or our competitors of new products;
- the public's reaction to our press releases, other public announcements, and filings with the SEC;
- rumors and market speculation involving us or other companies in our industry;
- actual or anticipated changes in our operating results or fluctuations in our operating results;
- actual or anticipated developments in our business, our competitors' businesses, or the competitive landscape generally;
- litigation involving us, our industry or both, or investigations by regulators into our operations or those of our competitors;
- developments or disputes concerning our intellectual property or other proprietary rights;
- announced or completed acquisitions of businesses or technologies by us or our competitors;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- changes in accounting standards, policies, guidelines, interpretations, or principles;
- any significant change in our management;
- conditions in the automobile industry; and
- general economic conditions and slow or negative growth of our markets.

In addition, the stock market in general, and the market for technology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry factors may seriously affect the market price of our Class A common stock, regardless of our actual operating performance. In addition, in the past, following periods of volatility in the overall market and the market prices of a particular company's securities, securities class action litigations have often been instituted against these companies. Litigation of this type, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

The exclusion of our Class A common stock from major stock indexes could adversely affect the trading market and price of our Class A common stock.

Several major stock index providers have announced they will begin to exclude, or are considering plans to exclude, from their indexes the securities of companies with unequal voting rights such as ours. Exclusion from stock indexes could make it more difficult, or impossible, for some fund managers to buy the excluded securities, particularly in the case of index tracking mutual funds and exchange traded funds. The exclusion of our Class A common stock from major stock indexes could adversely affect the trading market and price of our Class A common stock.

Anti-takeover provisions contained in our amended and restated certificate of incorporation and amended and restated bylaws, as well as provisions of Delaware law, could impair a takeover attempt.

The provisions of our amended and restated certificate of incorporation and amended and restated bylaws, and provisions of Delaware law, may have the effect of rendering more difficult, delaying, or preventing an acquisition deemed undesirable by our board of directors. Our corporate governance documents include provisions:

- creating a classified board of directors whose members serve staggered three-year terms;
- authorizing "blank check" preferred stock, which may contain voting, liquidation, dividend, and other rights superior to our Class A common stock and which, from and after the date, referred to as the threshold date, on which the votes applicable to the Class A common stock and Class B common stock controlled by Mr. Steinert represent less than a majority of the aggregate votes applicable to all shares of the outstanding Class A common stock and Class B common stock, could be issued by our board of directors without stockholder approval;
- limiting the liability of, and providing indemnification to, our directors and officers;
- limiting the ability of our stockholders to call and bring business before special meetings;
- requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our board of directors;
- limiting the ability, from and after the threshold date, of stockholders to amend our amended and restated certificate of incorporation;
- limiting the ability, from and after the threshold date, of stockholders to fill vacant directorships and remove directors; and
- prohibiting cumulative voting by stockholders.

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our management.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation law, which prevents some stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations without approval of the holders of substantially all of our outstanding common stock.

Any provision of our amended and restated certificate of incorporation, amended and restated bylaws, or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our Class A common stock, and could also affect the price that some investors are willing to pay for our Class A common stock.

Our amended and restated certificate of incorporation includes a forum selection clause, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us.

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will, to the fullest extent permitted by law, be the sole and exclusive forum for any stockholder to bring: (i) any derivative action or proceeding brought on behalf of us; (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees or agents to us or to our stockholders; (iii) any action asserting a claim against us arising pursuant to any provision of the Delaware General Corporation Law or our amended and restated certificate of incorporation or amended and restated bylaws; (iv) any action to interpret, apply, enforce or determine the validity of our amended and restated certificate of incorporation or our amended and restated bylaws; or (v) any action asserting a claim against us or any of our directors, officers, or other employees or agents governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have notice of and have consented to the foregoing provisions. This forum selection provision in our amended and restated certificate of incorporation may limit our stockholders' ability to obtain a favorable judicial forum for disputes with us. It is also possible that, notwithstanding the forum selection clause included in our amended and restated certificate of incorporation, a court could rule that such a provision is inapplicable or unenforceable.

If securities or industry analysts do not publish, or cease publishing, research or reports about us, our business or our market, or if they change their recommendations regarding our stock adversely, our stock price and trading volume could decline.

The trading market for our Class A common stock is influenced by the research and reports that industry or securities analysts may publish about us, our business, our market, and our competitors. If any of the analysts that covers us changes its recommendation regarding our stock adversely, or provides more favorable relative recommendations about our competitors, our stock price would likely decline. If any analyst that covers us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

We do not intend to pay cash dividends for the foreseeable future.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain any future earnings to finance the operation and expansion of our business, and we do not expect to declare or pay any cash dividends in the foreseeable future. As a result, our stockholders may only receive a return on their investment in our Class A common stock if the trading price of their shares increases.

Our status as a "controlled company" could make our Class A common stock less attractive to some investors or otherwise harm our stock price.

More than 50% of our voting power is held by Mr. Steinert. As a result, we are a "controlled company" under the corporate governance rules for Nasdaq-listed companies. Under these rules, a company of which more than 50% of the voting power is held by an individual, a group or another company is a controlled company and may elect not to comply with certain Nasdaq corporate governance requirements, including:

- the requirement that a majority of our board of directors consist of "independent directors" as defined under the rules of Nasdaq;
- the requirement that we have a compensation committee that is composed entirely of directors meeting Nasdaq independence standards applicable to compensation committee members with a written charter addressing the committee's purpose and responsibilities;
- the requirement that our compensation committee be responsible for the hiring and overseeing of persons acting as compensation consultants and be required to consider certain independence factors when engaging such persons; and
- the requirement that director nominees either be selected, or recommended for board of directors' selection, either by "independent directors" as defined under the rules of Nasdaq constituting a majority of the board of director's independent directors in a vote in which only independent directors participate, or by a nominations committee comprised solely of independent directors.

We have relied on certain or all of these exemptions. Accordingly, should the interests of our controlling stockholder differ from those of other stockholders, the other stockholders may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance rules for Nasdaq-listed companies. Our status as a controlled company could make our Class A common stock less attractive to some investors or otherwise harm our stock price.

As of December 31, 2018, we are no longer an emerging growth company and, as a result, we have incurred and expect to continue to incur significant additional legal and financial compliance costs by preparing to comply, and complying with, increased disclosure and governance requirements.

As of December 31, 2018, as a result of our market capitalization as of June 29, 2018 (and our having been public for at least 12 months as of December 31, 2018 and our having filed our 2017 Annual Report with the SEC), we are a large accelerated filer and ceased being an emerging growth company. Therefore, we are subject to certain requirements that apply to other public companies but did not previously apply to us due to our status as an emerging growth company. These requirements include:

- the provisions of Section 404 requiring that our independent registered public accounting firm provide an attestation report on the effectiveness of our internal control over financial reporting;
- the requirement to provide detailed compensation discussion and analysis in proxy statements and reports filed under the Exchange Act; and
- the “say on pay” provisions (requiring a non-binding stockholder vote to approve compensation of certain executive officers) and the “say on golden parachute” provisions (requiring a non-binding stockholder vote to approve golden parachute arrangements for certain executive officers in connection with mergers and certain other business combinations) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, and some of the disclosure requirements of the Dodd-Frank Act relating to compensation of our Chief Executive Officer.

We have already begun incurring significant additional legal and financial compliance costs in connection with our loss of emerging growth company status. We expect that our compliance with these additional requirements, including the provisions of Section 404, will continue to substantially increase our legal and financial compliance costs and make some activities more time consuming and costly.

Item 1B. Unresolved Staff Comments.

Not applicable.

Item 2. Properties.

We do not own any real property. Our principal executive offices are located in Cambridge, Massachusetts where we lease a total of approximately 148,375 square feet of space in three buildings under leases that expire in November 2022, January 2024, and October 2033. We also lease office space in Dublin, Ireland for our European operations, and in Detroit, Michigan, for additional space for our advertising sales employees.

Item 3. Legal Proceedings.

From time to time we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. We are not presently subject to any pending or threatened litigation that we believe, if determined adversely to us, individually, or taken together, would reasonably be expected to have a material adverse effect on our business or financial results.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.**Market Information for Common Stock**

Our Class A common stock has been listed on the Nasdaq Global Select Market under the symbol “CARG” since October 12, 2017. Prior to that date, there was no public trading market for our Class A common stock. Our initial public offering, or IPO, was priced at \$16.00 per share on October 11, 2017.

On February 27, 2019, the last reported sale price of our Class A common stock on the Nasdaq Global Select Market was \$42.65 per share.

Holder

As of February 22, 2019, we had 28 holders of record of our Class A common stock. The actual number of stockholders is greater than this number of record holders, and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees. The number of holders of record does not include stockholders whose shares may be held in trust by other entities.

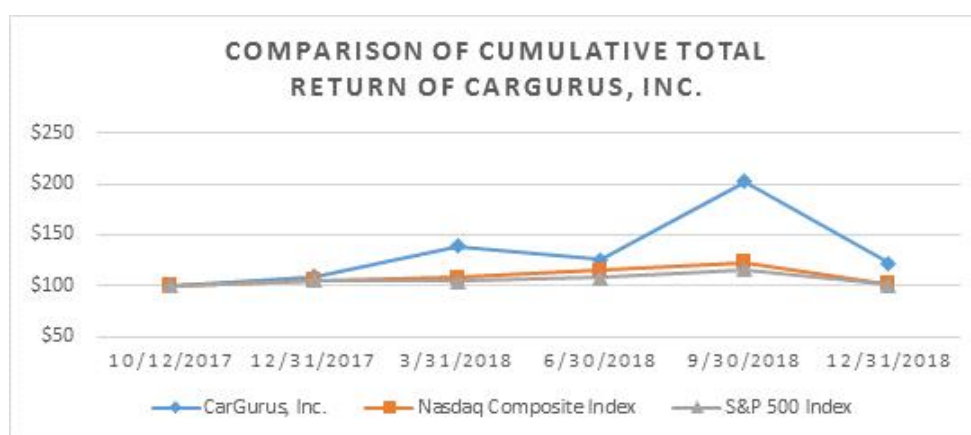
Dividends

We have never declared or paid any cash dividends on our common stock. We currently anticipate that we will retain future earnings to fund development and growth of our business, and we do not anticipate paying cash dividends in the foreseeable future.

Performance Graph

This performance graph shall not be deemed “soliciting material” or to be “filed” with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, or otherwise be subject to the liabilities under that section, and shall not be deemed to be incorporated by reference into any filing of CarGurus, Inc. under the Exchange Act or the Securities Act of 1933, as amended.

The following graph shows a comparison from October 12, 2017 (the date our Class A common stock commenced trading on the Nasdaq Global Select Market) through December 31, 2018 of the cumulative total return for our Class A common stock, the Nasdaq Composite Index and the S&P 500 Index. All values assume a \$100 initial cash investment and data for the Nasdaq Composite Index and the S&P 500 Index assume reinvestment of dividends, if any. Such returns are based on historical results and are not intended to suggest future performance.



Recent Sales of Unregistered Securities

None.

Purchases of Equity Securities

None.

Item 6. Selected Consolidated Financial Data.

The following Selected Consolidated Financial Data should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations”, the consolidated financial statements and related notes, and other financial information included in this Annual Report on Form 10-K.

We derived the consolidated statements of operations data for the years ended December 31, 2018, 2017, and 2016 and the consolidated balance sheet data as of December 31, 2018 and 2017 from our audited consolidated financial statements, which are included elsewhere in this Annual Report on Form 10-K. We derived the consolidated statement of operations data for the year ended December 31, 2015 and the consolidated balance sheet data as of December 31, 2016 and 2015 from our audited consolidated financial statements, which are not included in this Annual Report on Form 10-K. Historical results are not necessarily indicative of the results to be expected in future periods.

	Year Ended December 31,			
	2018(4)	2017	2016	2015
(in thousands, except share and per share data)				
Consolidated Statements of Operations Data:				
Revenue:				
Marketplace subscription	\$ 405,780	\$ 282,664	\$ 171,302	\$ 75,142
Advertising and other	48,306	34,197	26,839	23,446
Total revenue	<u>454,086</u>	<u>316,861</u>	<u>198,141</u>	<u>98,588</u>
Cost of revenue ⁽¹⁾	24,811	17,609	9,575	4,234
Gross profit	<u>429,275</u>	<u>299,252</u>	<u>188,566</u>	<u>94,354</u>
Operating expenses:				
Sales and marketing	315,939	236,165	154,125	81,877
Product, technology, and development	47,866	22,470	11,453	8,235
General and administrative	39,475	22,688	12,783	5,801
Depreciation and amortization	2,804	2,655	1,634	969
Total operating expenses	<u>406,084</u>	<u>283,978</u>	<u>179,995</u>	<u>96,882</u>
Income (loss) from operations	23,191	15,274	8,571	(2,528)
Other income (expense), net:				
Interest income	2,283	869	416	1
Other income (expense)	10	(306)	(42)	(13)
Total other income (expense), net	2,293	563	374	(12)
Income before income taxes	25,484	15,837	8,945	(2,540)
(Benefit from) provision for income taxes	(39,686)	2,638	2,448	(904)
Net income (loss)	<u>\$ 65,170</u>	<u>\$ 13,199</u>	<u>\$ 6,497</u>	<u>\$ (1,636)</u>
Net income (loss) per share attributable to common stockholders, basic and diluted: ⁽²⁾				
Basic	<u>\$ 0.60</u>	<u>\$ 0.13</u>	<u>\$ (0.58)</u>	<u>\$ (0.41)</u>
Diluted	<u>\$ 0.57</u>	<u>\$ 0.12</u>	<u>\$ (0.58)</u>	<u>\$ (0.41)</u>
Weighted—average shares used to compute net income (loss) per share attributable to common stockholders: ⁽²⁾				
Basic	108,833,028	55,835,265	44,138,922	43,141,236
Diluted	113,364,712	60,637,584	44,138,922	43,141,236
Other Financial Information:				
Adjusted EBITDA ⁽³⁾	\$ 49,014	\$ 24,097	\$ 10,965	\$ (366)

(1) Includes depreciation and amortization expense for the years ended December 31, 2018, 2017, 2016, and 2015 of \$2,225, \$1,140, \$438, and \$153, respectively.

- (2) For years ended December 31, 2018, 2017 and 2016, see Note 9 of the notes to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for an explanation of the calculations of our net income (loss) per share attributable to common stockholders. For year ended December 31, 2015, see our Annual Report on Form 10-K for an explanation of the calculations of our net income (loss) per share attributable to common stockholders.
- (3) See “— Adjusted EBITDA” below for more information and for a reconciliation of Adjusted EBITDA to net income (loss), the most directly comparable financial measure calculated and presented in accordance with GAAP.
- (4) See Note 2 of the notes to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for an explanation of the impact of adoption of ASC 606.

	December 31,			
	2018(1)	2017	2016	2015
	(in thousands)			
Consolidated Balance Sheet Data:				
Cash, cash equivalents, and investments	\$ 157,687	\$ 137,709	\$ 74,250	\$ 61,363
Property and equipment, net	24,269	16,563	12,780	7,147
Working capital	131,355	114,238	56,457	52,751
Total assets	268,290	176,594	100,331	77,781
Total liabilities	74,179	49,569	35,605	20,534
Convertible preferred stock	—	—	132,698	73,378
Total stockholders' equity (deficit)	194,111	127,025	(67,972)	(16,131)

- (1) See Note 2 of the notes to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for an explanation of the impact of adoption of ASC 606.

Adjusted EBITDA

To provide investors with additional information regarding our financial results, we monitor and have presented within this Annual Report on Form 10-K Adjusted EBITDA, which is a non-GAAP financial measure. This non-GAAP financial measure is not based on any standardized methodology prescribed by U.S. generally accepted accounting principles, or GAAP, and is not necessarily comparable to similarly titled measures presented by other companies.

We define Adjusted EBITDA as net income (loss), adjusted to exclude: depreciation and amortization, stock-based compensation expense, other (income) expense, net, the (benefit from) provision for income taxes, and certain one-time, non-recurring items, if and when applicable. We have presented Adjusted EBITDA in this Annual Report on Form 10-K because it is a key measure used by our management and board of directors to understand and evaluate our operating performance, generate future operating plans, and make strategic decisions regarding the allocation of capital. In particular, we believe that the exclusion of certain items in calculating Adjusted EBITDA can produce a useful measure for period-to-period comparisons of our business.

We use Adjusted EBITDA to evaluate our operating performance and trends and make planning decisions. We believe Adjusted EBITDA helps identify underlying trends in our business that could otherwise be masked by the effect of the expenses that we exclude. Accordingly, we believe that Adjusted EBITDA provides useful information to investors and others in understanding and evaluating our operating results, enhancing the overall understanding of our past performance and future prospects, and allowing for greater transparency with respect to key financial metrics used by our management in its financial and operational decision-making. In addition, we evaluate our Adjusted EBITDA in relation to our revenue. We refer to this as Adjusted EBITDA margin and define it as Adjusted EBITDA divided by total revenue.

Our Adjusted EBITDA is not prepared in accordance with GAAP, and should not be considered in isolation of, or as an alternative to, measures prepared in accordance with GAAP. There are a number of limitations related to the use of Adjusted EBITDA rather than net income, which is the most directly comparable GAAP equivalent. Some of these limitations are:

- Adjusted EBITDA excludes stock-based compensation expense, which will be, for the foreseeable future, a significant recurring expense for our business and an important part of our compensation strategy;
- Adjusted EBITDA excludes depreciation and amortization expense and, although these are non-cash expenses, the assets being depreciated may have to be replaced in the future;

- Adjusted EBITDA does not reflect other income, net which primarily includes interest income;
- Adjusted EBITDA does not reflect income tax payments or tax benefits that reduce cash available to us; and
- other companies, including companies in our industry, may calculate Adjusted EBITDA differently, which reduces its usefulness as a comparative measure.

Because of these limitations, we consider, and you should consider, Adjusted EBITDA together with other operating and financial performance measures presented in accordance with GAAP.

The following table presents a reconciliation of Adjusted EBITDA to net income (loss), the most directly comparable measure calculated in accordance with GAAP, for each of the periods presented.

	Year Ended December 31,			
	2018(1)	2017	2016	2015
(in thousands)				
Reconciliation of Adjusted EBITDA:				
Net income (loss)	\$ 65,170	\$ 13,199	\$ 6,497	\$ (1,636)
Depreciation and amortization	5,029	3,795	2,072	1,122
Stock-based compensation expense	20,794	5,028	322	1,040
Other (income) expense, net	(2,293)	(563)	(374)	12
(Benefit from) provision for income taxes	(39,686)	2,638	2,448	(904)
Adjusted EBITDA	<u>\$ 49,014</u>	<u>\$ 24,097</u>	<u>\$ 10,965</u>	<u>\$ (366)</u>

- (1) See Note 2 of the notes to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for an explanation of the impact of adoption of ASC 606 on net income and benefit from taxes for the year ended December 31, 2018.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and the related notes and other financial information included elsewhere in this report. Some of the information contained in this discussion and analysis or elsewhere in this report, including information with respect to our plans and strategy for our business and our performance and future success, includes forward-looking statements that involve risks and uncertainties. See “Special Note Regarding Forward-Looking Statements.” You should review the “Risk Factors” section of this Annual Report on Form 10-K for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis. In this discussion, we use financial measures that are considered non-GAAP financial measures under Securities and Exchange Commission rules. These rules regarding non-GAAP financial measures require supplemental explanation and reconciliation, which is included elsewhere in this Annual Report on Form 10-K. Investors should not consider non-GAAP financial measures in isolation from or in substitution for, financial information presented in compliance with U.S. generally accepted accounting principles, or GAAP.

Company Overview

CarGurus is a global, online automotive marketplace connecting buyers and sellers of new and used cars. Using proprietary technology, search algorithms, and innovative data analytics, we provide information and analysis that create a differentiated automotive search experience for consumers. Our trusted marketplace empowers users with unbiased third-party validation on pricing and dealer reputation as well as other information that aids them in finding “Great Deals from Top-Rated Dealers.” In addition to the United States, we operate online marketplaces in Canada, the United Kingdom, Germany, Italy, and Spain.

We generate marketplace subscription revenue from dealers through Listing and Dealer Display subscriptions, and advertising revenue from automobile manufacturers and other auto-related brand advertisers. We generated revenue of \$454.1 million in 2018, \$316.9 million in 2017, and \$198.1 million in 2016, representing year-over-year increases of 43% in 2018 and 60% in 2017.

In 2018, we generated net income of \$65.2 million and our Adjusted EBITDA was \$49.0 million, compared to a net income of \$13.2 million and Adjusted EBITDA of \$24.1 million in 2017, and a net income of \$6.5 million and Adjusted EBITDA of \$11.0 million in 2016. See “Selected Consolidated Financial Data — Adjusted EBITDA” for more information regarding our use of Adjusted EBITDA, a non-GAAP financial measure, and a reconciliation of Adjusted EBITDA to our net income.

We have two reportable segments, United States and International. See Note 11 of our Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K for more information.

Key Business Metrics

We regularly review a number of metrics, including the key metrics listed below, to evaluate our business, measure our performance, identify trends affecting our business, formulate financial projections, and make operating and strategic decisions. We believe it is important to evaluate these metrics for the United States and International segments. The International segment derives revenues from marketplace subscriptions, advertising services, and other revenues from customers outside of the United States. International markets perform differently from the United States market due to a variety of factors, including our operating history in the market, our rate of investment, market size, market maturity, and other dynamics unique to each country.

Monthly Unique Users

For each of our websites, we define a monthly unique user as an individual who visited such website within a calendar month, based on data as measured by Google Analytics. We calculate average monthly unique users as the sum of the monthly unique users in a given period, divided by the number of months in that period. We count a unique user the first time a computer or mobile device with a unique device identifier accesses one of our websites during a calendar month. If an individual accesses one of our websites using a different device within a given month, the first access by each such device is counted as a separate unique user. We view our average monthly unique users as a key indicator of the quality of our user experience, the effectiveness of our advertising and traffic acquisition, and the strength of our brand awareness. Measuring unique users is important to us because our marketplace subscription revenue depends, in part, on our ability to provide dealers with connections to our users and exposure to our marketplace audience. We define connections as interactions between consumers and dealers on our marketplace through phone calls, email, managed text and chat, and clicks to access the dealer's website or map directions to the dealership.

Average Monthly Unique Users	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
United States	34,275	24,469	20,120
International	4,280	2,451	1,396
Total	38,555	26,920	21,516

Monthly Sessions

We define monthly sessions as the number of distinct visits to our websites that take place each month within a given time frame, as measured and defined by Google Analytics. We calculate average monthly sessions as the sum of the monthly sessions in a given period, divided by the number of months in that period. A session is defined as beginning with the first page view from a computer or mobile device and ending at the earliest of when a user closes their browser window, after 30 minutes of inactivity, or at midnight Eastern Time each night. A session can be made up of multiple page views and visitor actions, such as performing a search, visiting vehicle detail pages, and connecting with a dealer. We believe the volume of sessions in a time period, when considered in conjunction with the number of unique users in that time period, is an indicator of consumer satisfaction and engagement with our marketplace.

Average Monthly Sessions	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
United States	91,798	64,758	46,706
International	9,873	5,365	2,627
Total	101,671	70,123	49,333

Number of Paying Dealers

A paying dealer is a dealer, based on a distinct associated inventory feed, that subscribes to our Enhanced or Featured Listing product at the end of a defined period. We believe that the number of paying dealers is indicative of the value proposition of our Listing products, and our sales and marketing success, including our ability to retain paying dealers and develop new dealer relationships.

Number of Paying Dealers	As of December 31,		
	2018	2017	2016
United States	27,534	25,122	20,349
International	3,938	2,548	952
Total	31,472	27,670	21,301

Average Annual Revenue per Subscribing Dealer (AARSD)

We measure the average annual revenue we receive from each paying dealer. We define AARSD, which is measured at the end of a defined period, as the total marketplace subscription revenue during the trailing 12 months divided by the average number of paying dealers during the same trailing 12-month period. We believe that our ability to grow AARSD is an indicator of the value proposition of our products and the return on investment, or ROI, our paying dealers realize from our products. Increases in AARSD, which we believe reflect the value of exposure to our engaged audience in relation to subscription cost, are driven by our ability to grow the volume of connections to our users and the quality of those connections, which result in increased opportunity to upsell package levels and cross-sell additional products to our paying dealers.

Average Annual Revenue per Subscribing Dealer (AARSD)	As of December 31,		
	2018	2017	2016
United States	\$ 14,819	\$ 12,055	\$ 10,383
International	\$ 4,778	\$ 4,904	\$ 3,830
Consolidated	\$ 13,718	\$ 11,544	\$ 10,187

Adjusted EBITDA

We define Adjusted EBITDA as net income (loss), adjusted to exclude: depreciation and amortization, stock-based compensation expense, other (income) expense, net, the (benefit from) provision for income taxes, and certain one-time, non-recurring items, if and when applicable. We monitor and have presented Adjusted EBITDA in this Annual Report on Form 10-K as a non-GAAP financial measure to supplement the financial information we present on a GAAP basis to provide investors with additional information regarding our financial results. Adjusted EBITDA, as a non-GAAP financial measure, should not be considered in isolation from, or as an alternative to, measures prepared in accordance with GAAP. We consider, and you should consider, Adjusted EBITDA together with other operating and financial performance measures presented in accordance with GAAP. Also, our non-GAAP measure may not necessarily be comparable to similarly titled measures presented by other companies.

We believe that Adjusted EBITDA is a key indicator of our operating results. For further explanation of the uses and limitations of this measure and a reconciliation of our Adjusted EBITDA to the most directly comparable GAAP measure, net income, please see “Selected Consolidated Financial Data — Adjusted EBITDA.”

Components of Consolidated Statements of Operations

Revenue

Our revenue is derived from two primary sources: (i) marketplace subscription revenue and (ii) advertising and other revenue, as described below.

Marketplace Subscription Revenue

We offer three types of marketplace Listing products to dealers: Basic Listing, which is free; and Enhanced or Featured Listing, which require a paid subscription under a monthly, quarterly, semiannual, or annual subscription basis. Contractual subscriptions for customers generally auto-renew on a monthly basis and are cancellable by dealers with 30-days’ advance notice. We also offer Listing dealers access to the Dealer Dashboard, which includes a performance summary, Dealer Insights tool, user review management platform, Pricing Tool, and Market Analysis tool. The Pricing Tool and Market Analysis tool are available only to paying dealers.

In addition to listing inventory in the marketplace and providing access to the Dealer Dashboard, we offer Enhanced and Featured Listing dealers other subscription advertising and customer acquisition products, including display advertising that appears in our marketplace and on other sites on the internet. This advertising can be targeted by geography, search history, and a number of other factors, and dealer search engine marketing, which helps dealers more effectively acquire customers through paid search, social media, and retargeted advertising.

Advertising and Other Revenue

Advertising and other revenue consists primarily of non-dealer display advertising revenue from auto manufacturers and other auto-related brand advertisers sold on a cost per thousand impressions, or CPM, basis. An impression is an advertisement loaded on a web page. In addition to advertising sold on a CPM basis, we also have advertising sold on a cost per click basis. Auto manufacturers and other brand advertisers can execute advertising campaigns that are targeted across a wide variety of parameters, including demographic groups, behavioral characteristics, specific auto brands, categories such as Certified Pre-Owned, and segments such as hybrid vehicles.

For a description of our revenue accounting policies, see “— Critical Accounting Policies and Significant Estimates.”

Cost of Revenue

Cost of revenue primarily consists of costs related to supporting and hosting our product offerings. These costs include salaries, benefits, incentive compensation, and stock-based compensation expense related to the customer support team and third-party service provider costs such as data center and networking expenses, allocated overhead, depreciation and amortization expense associated with our property and equipment, and amortization of capitalized website development costs. We allocate overhead costs, such as rent and facility costs, information technology costs, and employee benefit costs, to all departments based on headcount. As such, general overhead expenses are reflected in cost of revenue and each operating expense category. We expect these expenses to increase as we continue to scale our business and introduce new products.

Operating Expenses

Sales and Marketing

Sales and marketing expenses consist primarily of personnel and related expenses for our sales and marketing staff, including salaries, benefits, incentive compensation, commissions, stock-based compensation expense, and travel costs; costs associated with consumer marketing, such as traffic acquisition, brand building, and public relations activities; costs associated with dealer marketing, such as content marketing, customer and promotional events, and industry events; and allocated overhead. We expect sales and marketing expenses to increase as we grow our audience and attempt to strengthen our brand awareness and, as informed by trends in our business and the competitive landscape of our market, fluctuate from quarter to quarter, which will impact our quarterly results of operations.

Product, Technology, and Development

Product, technology, and development expenses, which include research and development costs, consist primarily of personnel costs of our development team, including payroll, benefits, stock-based compensation expense and allocated overhead costs. Other than website development costs and other costs that qualify for capitalization, research and development costs are expensed as incurred. We expect product, technology, and development expenses to increase as we develop new products and make improvements to our existing platform.

General and Administrative

General and administrative expenses consist of personnel costs and related expenses for executive, finance, legal, human resources, and administrative personnel, including salaries, benefits, incentive compensation, and stock-based compensation expense, in addition to the costs associated with professional fees for external legal, accounting and other consulting services, insurance premiums, payment processing and billing costs, and allocated overhead costs. We expect general and administrative expenses to increase as we continue to incur the costs of compliance associated with being a publicly traded company, including legal, audit, and consulting fees.

Depreciation and Amortization

Depreciation and amortization expenses consist of depreciation on property and equipment and leasehold improvements.

Other Income, Net

Other income, net consists primarily of interest income earned on our cash, cash equivalents, and investments, interest expense on lease obligations, and net foreign exchange gains and losses.

(Benefit from) Provision for Income Taxes

We are subject to federal and state income taxes in the United States and taxes in foreign jurisdictions in which we operate. We have recognized a benefit from income taxes for the period ended December 31, 2018 as a result of stock-based compensation benefits recorded. We have recorded a provision for income taxes for the periods ended December 31, 2017 and 2016 as a result of our consolidated taxable income position. We recognize deferred tax assets and liabilities based on temporary differences between the financial reporting and income tax bases of assets and liabilities using statutory rates. We regularly assess the need to record a valuation allowance against net deferred tax assets if, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. We have not provided a valuation allowance against our net deferred tax assets at December 31, 2018 or 2017.

Results of Operations

The following table sets forth our selected consolidated statements of operations data for each of the periods indicated. The period-to-period comparison of financial results is not necessarily indicative of future results.

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Revenue:			
Marketplace subscription	\$ 405,780	\$ 282,664	\$ 171,302
Advertising and other	48,306	34,197	26,839
Total revenue	454,086	316,861	198,141
Cost of revenue	24,811	17,609	9,575
Gross profit	429,275	299,252	188,566
Operating expenses:			
Sales and marketing	315,939	236,165	154,125
Product, technology, and development	47,866	22,470	11,453
General and administrative	39,475	22,688	12,783
Depreciation and amortization	2,804	2,655	1,634
Total operating expenses	406,084	283,978	179,995
Income from operations	23,191	15,274	8,571
Other income, net:			
Interest income	2,283	869	416
Other income (expense)	10	(306)	(42)
Total other income, net	2,293	563	374
Income before income taxes	25,484	15,837	8,945
(Benefit from) provision for income taxes	(39,686)	2,638	2,448
Net income	<u>\$ 65,170</u>	<u>\$ 13,199</u>	<u>\$ 6,497</u>

	Year Ended December 31,		
	2018	2017	2016
(in thousands)			
Additional Financial Data			
Revenue			
United States	\$ 437,166	\$ 307,472	\$ 195,824
International	16,920	9,389	2,317
Total	<u>\$ 454,086</u>	<u>\$ 316,861</u>	<u>\$ 198,141</u>
Income (Loss) from Operations			
United States	\$ 58,387	\$ 41,586	\$ 27,461
International	(35,196)	(26,312)	(18,890)
Total	<u>\$ 23,191</u>	<u>\$ 15,274</u>	<u>\$ 8,571</u>

The following table sets forth our selected consolidated statements of operations data as a percentage of revenue for each of the periods indicated.

	Year Ended December 31,		
	2018	2017	2016
Revenue:			
Marketplace subscription	89%	89%	86%
Advertising and other	11	11	14
Total revenue	100%	100%	100%
Cost of revenue	5	6	5
Gross profit	95	94	95
Operating expenses:			
Sales and marketing	69	74	78
Product, technology, and development	11	7	6
General and administrative	9	7	6
Depreciation and amortization	1	1	1
Total operating expenses	90	89	91
Income from operations	5	5	4
Other income, net:			
Interest income	0	0	0
Other income (expense)	0	(0)	(0)
Total other income, net	0	0	0
Income before income taxes	5	5	4
(Benefit from) provision for income taxes	(9)	1	1
Net income	<u>14%</u>	<u>4%</u>	<u>3%</u>

	Year Ended December 31,		
	2018	2017	2016
Additional Financial Data			
Revenue			
United States	96%	97%	99%
International	4	3	1
Total	<u>100%</u>	<u>100%</u>	<u>100%</u>
Income (Loss) from Operations			
United States	13%	13%	14%
International	(8)	(8)	(10)
Total	<u>5%</u>	<u>5%</u>	<u>4%</u>

Year Ended December 31, 2018 Compared to Year Ended December 31, 2017

Revenue

Revenue by Source

	Year Ended December 31,		Change	
	2018	2017	Amount	%
(dollars in thousands)				
Revenue				
Marketplace subscription	\$ 405,780	\$ 282,664	\$ 123,116	44%
Advertising and other	48,306	34,197	14,109	41
Total	<u>\$ 454,086</u>	<u>\$ 316,861</u>	<u>\$ 137,225</u>	<u>43%</u>
Percentage of total revenue:				
Marketplace subscription	89%	89%		
Advertising and other	11	11		
Total	<u>100%</u>	<u>100%</u>		

Overall revenue increased \$137.2 million, or 43%, in the year ended December 31, 2018 compared to the year ended December 31, 2017. Marketplace subscription revenue increased by 44% while advertising and other revenue grew by 41%.

Marketplace subscription revenue increased \$123.1 million in the year ended December 31, 2018 compared to the year ended December 31, 2017, and represented 89% of total revenue in both 2018 and 2017. This increase in marketplace subscription revenue was attributable primarily to a 14% growth in the number of United States and International paying dealers, to 31,472 as of December 31, 2018 from 27,670 as of December 31, 2017, and to a 23% growth in our AARSD for United States dealers to \$14,819 as of December 31, 2018 from \$12,055 as of December 31, 2017. The increase in paying dealers was driven by the efforts of our sales and marketing teams to subscribe dealers to our Enhanced and Featured Listing paid products. The increase in our AARSD for United States dealers was driven by the investments made in building our brand and growing our audience which resulted in growth in volume of connections.

Advertising and other revenue increased \$14.1 million in the year ended December 31, 2018 compared to the year ended December 31, 2017, and represented 11% of total revenue in 2018 and 2017. The increase in advertising and other revenue was due primarily to a 70% increase in the number of impressions, which was partially offset by a 17% decrease in the average price per thousand impressions, in 2018 compared to 2017.

Revenue by Segment

	Year Ended December 31,		Change	
	2018	2017	Amount	%
(dollars in thousands)				
Revenue				
United States	\$ 437,166	\$ 307,472	\$ 129,694	42%
International	16,920	9,389	7,531	80
Total	<u>\$ 454,086</u>	<u>\$ 316,861</u>	<u>\$ 137,225</u>	<u>43%</u>
Percentage of total revenue:				
United States	96%	97%		
International	4	3		
Total	<u>100%</u>	<u>100%</u>		

United States revenue increased \$129.7 million, or 42%, in the year ended December 31, 2018 compared to the year ended December 31, 2017, due primarily to a 10% increase in the number of United States paying dealers and a 23% increase in AARSD for United States dealers.

International revenue increased \$7.5 million, or 80%, in the year ended December 31, 2018 compared to the year ended December 31, 2017, due primarily to a 55% increase in the number of International paying dealers. International paying dealers grew to 3,938 at December 31, 2018 from 2,548 at December 31, 2017.

Cost of Revenue

	Year Ended December 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Cost of revenue	\$ 24,811	\$ 17,609	\$ 7,202	41%
Percentage of total revenue	5%	6%		

Cost of revenue increased \$7.2 million, or 41%, in the year ended December 31, 2018 compared to the year ended December 31, 2017. The increase was due primarily to a \$2.7 million increase in costs related to connecting consumers with dealers through a variety of methods, including phone calls, email, and managed text and chat, a \$1.7 million increase in fees related to provisioning advertising campaigns on our websites, a \$1.4 million increase in data center and hosting costs, and a \$1.2 million increase in amortization and depreciation.

Operating Expenses

Sales and Marketing Expenses

	Year Ended December 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Sales and marketing	\$ 315,939	\$ 236,165	\$ 79,774	34%
Percentage of total revenue	69%	74%		

Sales and marketing expenses increased \$79.8 million, or 34%, in the year ended December 31, 2018 compared to the year ended December 31, 2017. The increase was due primarily to an increase in advertising costs of \$65.5 million as well as an increase of \$8.1 million in salaries and employee-related costs (excluding commission expense) resulting from a 25% increase in headcount and payroll taxes of \$0.9 million driven by the employer portion of FICA taxes on the exercise of stock awards and vesting of restricted stock units, or RSUs. This increase for the year ended December 31, 2018 was also due in part to a \$3.2 million increase in stock-based compensation expense related to RSUs resulting from the increase in headcount, a \$1.7 million increase in marketing events and market research due to efforts to increase brand awareness, a \$0.8 million increase in rent due to a new office building in Cambridge and rent increase in Ireland, and a \$0.8 million increase in software subscriptions. These increases were partially offset by a \$2.7 million decrease in commission expense driven by our adoption of Accounting Standards Codification, or ASC, Topic 606, *Revenue from Contracts with Customers*, or ASC 606, during the year ended December 31, 2018.

Product, Technology, and Development Expenses

	Year Ended December 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Product, technology, and development	\$ 47,866	\$ 22,470	\$ 25,396	113%
Percentage of total revenue	11%	7%		

Product, technology, and development expenses increased \$25.4 million, or 113%, in the year ended December 31, 2018 compared to the year ended December 31, 2017. The increase was due primarily to a \$13.8 million increase in salaries and employee-related costs resulting from a 59% increase in headcount and payroll taxes of \$1.2 million driven by the employer portion of FICA taxes on the exercise of stock awards and vesting of RSUs. This increase for the year ended December 31, 2018 was also due in part to an \$8.1 million increase in stock-based compensation expense related to RSUs resulting from the increase in headcount, \$0.8 million increase in rent due to a new office building in Cambridge, a \$0.5 million increase in software subscriptions and a \$0.5 million increase in consulting fees.

General and Administrative Expenses

	Year Ended December 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
General and administrative	\$ 39,475	\$ 22,688	\$ 16,787	74%
Percentage of total revenue	9%	7%		

General and administrative expenses increased \$16.8 million, or 74%, in the year ended December 31, 2018 compared to the year ended December 31, 2017. The increase was due primarily to an increase of \$4.7 million of insurance, legal, consulting and external reporting fees driven by costs incurred to comply with public company requirements as well as an increase of \$4.4 million in salaries and employee-related costs resulting from a 45% increase in headcount and payroll taxes of \$0.3 million driven by the employer portion of FICA taxes on the exercise of stock awards and vesting of RSUs. This increase for the year ended December 31, 2018 was also due in part to a \$4.1 million increase in stock-based compensation expense related to RSUs due to the increase in headcount, a \$1.8 million increase in payment processing and billing costs due to increased customer transactions with higher billings resulting from revenue growth and a \$0.6 million increase in bad debt expense.

Depreciation and Amortization Expenses

	Year Ended December 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Depreciation and amortization	\$ 2,804	\$ 2,655	\$ 149	6%
Percentage of total revenue	1%	1%		

Depreciation and amortization expenses increased \$0.1 million, or 6%, in the year ended December 31, 2018 compared to the year ended December 31, 2017.

Other Income, net

	Year Ended December 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Other income, net				
Interest income	\$ 2,283	\$ 869	\$ 1,414	163%
Other income (expense)	10	(306)	316	103
Total other income, net	\$ 2,293	\$ 563	\$ 1,730	307%
Percentage of total revenue:				
Interest income	0%	0%		
Other income (expense)	0	(0)		
Total other income, net	0%	0%		

Other income, net increased \$1.7 million, or 307%, in the year ended December 31, 2018 compared to the year ended December 31, 2017. The \$1.4 million increase in interest income is primarily due to the investment of cash in certificates of deposit, money market funds arising from our increased cash from operations, and an increase in interest rates. The \$0.3 million increase in other income (expense) is primarily due the Euro strengthening against the U.S. Dollar in 2017 and remaining relatively flat in 2018.

(Benefit from) Provision for Income Taxes

	Year Ended December 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
(Benefit from) provision for income taxes	\$ (39,686)	\$ 2,638	\$ (42,324)	NM
Percentage of total revenue	(9)%	1%		

NM — Not Meaningful

The benefit from income taxes recorded during the year ended December 31, 2018, as compared to the provision for income taxes recorded during the year ended December 31, 2017, was principally due to \$40.8 million in stock-based compensation benefits recorded during the year ended December 31, 2018, as well as an increase in federal and state research and development tax credits and a lower federal statutory tax rate due to The Tax Cuts and Jobs Act, or the TCJA, as compared to year ended December 31, 2017.

Income (Loss) from Operations by Segment

	Year Ended December 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
United States	\$ 58,387	\$ 41,586	\$ 16,801	40%
International	(35,196)	(26,312)	(8,884)	(34)
Total	\$ 23,191	\$ 15,274	\$ 7,917	52%
Percentage of segment revenue:				
United States	13%	14%		
International	NM	NM		

NM — Not Meaningful

United States income from operations increased \$16.8 million, or 40%, in the year ended December 31, 2018 compared to the year ended December 31, 2017. This increase was due to an increase in revenue of \$129.7 million, offset in part by the increases in cost of revenue of \$6.8 million and operating expenses of \$106.1 million.

International loss from operations increased \$8.9 million, or 34% in the year ended December 31, 2018 compared to the year ended December 31, 2017. The increase in International loss from operations reflects our continued investment into international markets and expansion into new countries.

Year Ended December 31, 2017 Compared to Year Ended December 31, 2016

Revenue

Revenue by Source

	Year Ended December 31,		Change	
	2017	2016	Amount	%
(dollars in thousands)				
Revenue				
Marketplace subscription	\$ 282,664	\$ 171,302	\$ 111,362	65 %
Advertising and other	34,197	26,839	7,358	27
Total	<u>\$ 316,861</u>	<u>\$ 198,141</u>	<u>\$ 118,720</u>	<u>60 %</u>
Percentage of total revenue:				
Marketplace subscription	89 %	86 %		
Advertising and other	11	14		
Total	<u>100 %</u>	<u>100 %</u>		

Overall revenue increased \$118.7 million, or 60%, in the year ended December 31, 2017 compared to the year ended December 31, 2016. Marketplace subscription revenue increased by 65% while advertising and other revenue grew by 27%.

Marketplace subscription revenue increased \$111.4 million in the year ended December 31, 2017 compared to the year ended December 31, 2016, and represented 89% of total revenue in 2017 compared to 86% of total revenue in 2016. This increase in marketplace subscription revenue was attributable primarily to a 30% growth in the number of U.S. and International paying dealers, to 27,670 as of December 31, 2017 from 21,301 as of December 31, 2016, and to a 16% growth in our AARSD for U.S. dealers to \$12,055 in the year ended December 31, 2017 from \$10,383 in the year ended December 31, 2016. We believe that this increase in paying dealers was driven by the overall growth in the number of unique users to our websites and mobile applications and the efforts of our sales and marketing teams to subscribe dealers to our Enhanced and Featured Listing paid products.

Advertising and other revenue increased \$7.4 million in the year ended December 31, 2017 compared to the year ended December 31, 2016, and represented 11% of total revenue in 2017 compared to 14% of total revenue in 2016. The increase in advertising and other revenue was due primarily to a 16% increase in the number of impressions delivered in 2017 and a 28% increase in the average price per thousand impressions in 2017 compared to 2016. The increase was also partially offset by a reduction in other advertising revenue.

Revenue by Segment

	Year Ended December 31,		Change	
	2017	2016	Amount	%
(dollars in thousands)				
Revenue				
United States	\$ 307,472	\$ 195,824	\$ 111,648	57 %
International	9,389	2,317	7,072	305
Total	<u>\$ 316,861</u>	<u>\$ 198,141</u>	<u>\$ 118,720</u>	<u>60 %</u>
Percentage of total revenue:				
United States	97 %	99 %		
International	3	1		
Total	<u>100 %</u>	<u>100 %</u>		

U.S. revenue increased \$111.6 million, or 57%, in the year ended December 31, 2017 compared to the year ended December 31, 2016, due primarily to a 23% increase in the number of U.S. paying dealers and a 16% increase in AARSD for U.S. dealers.

International revenue increased \$7.1 million in the year ended December 31, 2017 compared to the year ended December 31, 2016, due primarily to an increase in the number of International paying dealers. International paying dealers grew to 2,548 at December 31, 2017 from 952 at December 31, 2016.

Cost of Revenue

	Year Ended December 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
Cost of revenue	\$ 17,609	\$ 9,575	\$ 8,034	84 %
Percentage of total revenue	6 %	5 %		

Cost of revenue increased \$8.0 million, or 84%, in the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase was due primarily to a \$2.4 million increase in employee-related costs for our customer support team to support the growth in customers, a \$1.9 million increase in fees related to provisioning advertising campaigns on our websites, a \$1.3 million increase in costs related to connecting consumers with dealers through a variety of methods, including phone calls, email, and managed text and chat, a \$0.9 million increase in costs to improve the content on our websites, a \$0.8 million increase for data center and hosting costs, and a \$0.5 million increase in amortization of website development costs.

Operating Expenses

Sales and Marketing Expenses

	Year Ended December 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
Sales and marketing	\$ 236,165	\$ 154,125	\$ 82,040	53 %
Percentage of total revenue	74 %	78 %		

Sales and marketing expenses increased \$82.0 million, or 53%, in the year ended December 31, 2017 compared to the year ended December 31, 2016. This increase was due primarily to an increase in advertising costs of \$61.0 million, a \$12.8 million increase in salaries, commissions, and related expenses due to our increased revenue and a 21% increase in headcount, a \$2.0 million increase in expenses related to marketing events and activities, a \$1.7 million increase in consulting fees, a \$1.0 million increase in rent due to the expansion of our office space, and a \$0.8 million increase in software subscriptions. The increase for the year ended December 31, 2017 was also due to a \$1.7 million increase in stock-based compensation expense primarily due to the recognition of expense related to RSUs with a performance condition satisfied on the effectiveness of the registration statement for our IPO. Although the performance-based vesting condition was satisfied, under the terms of the awards, the settlement of such vested RSUs and the issuance of common stock with respect to such vested RSUs will occur on April 10, 2018, one hundred eighty-one days after the satisfaction of the performance condition.

Product, Technology, and Development Expenses

	Year Ended December 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
Product, technology, and development	\$ 22,470	\$ 11,453	\$ 11,017	96 %
Percentage of total revenue	7 %	6 %		

Product, technology, and development expenses increased \$11.0 million, or 96%, in the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase was due primarily to an increase in salaries and related employment expenses due to a 68% increase in headcount to support our growth and product innovations. The increase for the year ended December 31, 2017 was also due to a \$1.7 million increase in stock-based compensation expense primarily due to the recognition of expense related to RSUs with a performance condition satisfied on the effectiveness of the registration statement for our IPO.

General and Administrative Expenses

	Year Ended December 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
General and administrative	\$ 22,688	\$ 12,783	\$ 9,905	77%
Percentage of total revenue	7%	6%		

General and administrative expenses increased \$9.9 million, or 77%, in the year ended December 31, 2017 compared to the year ended December 31, 2016. The change primarily reflected an increase of \$5.0 million of salaries and employee-related costs as a result of our 81% increase in headcount as we continued to grow our business and require additional personnel to support our expanded operations, a \$1.4 million increase in payment processing and billing costs due to increased customer transactions with higher billings, a \$1.1 million increase in external consulting and insurance fees driven by costs incurred to comply with public company requirements, and a \$0.6 million increase in bad debt expense. The increase for the year ended December 31, 2017 was also due to a \$1.3 million increase in stock-based compensation expense primarily due to the recognition of expense related to RSUs with a performance condition satisfied on the effectiveness of the registration statement for our IPO.

Depreciation and Amortization Expenses

	Year Ended December 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
Depreciation and amortization	\$ 2,655	\$ 1,634	\$ 1,021	62%
Percentage of total revenue	1%	1%		

Depreciation and amortization expenses increased \$1.0 million, or 62%, in the year ended December 31, 2017 compared to the year ended December 31, 2016, due primarily to increased depreciation of additional leasehold improvements.

Other Income, net

	Year Ended December 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
Other income, net				
Interest income	\$ 869	\$ 416	\$ 453	109%
Other (expense) income	(306)	(42)	(264)	(629)
Total other income, net	\$ 563	\$ 374	\$ 189	51%
Percentage of total revenue:				
Interest income	0%	0%		
Other (expense) income	(0)	(0)		
Total other income, net	0%	0%		

Other income, net increased \$0.2 million, or 51%, in the year ended December 31, 2017 compared to the year ended December 31, 2016. The \$0.5 million increase in interest income is primarily due to the investment of cash in certificates of deposit and money market funds arising from our increased cash from operations and the funds raised in our IPO. The \$0.3 million decrease in other income (expense) is primarily due to losses on foreign currency transactions, primarily a result of the U.S. Dollar weakening against the Euro.

Provision for Income Taxes

	Year Ended December 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
Provision for income taxes	\$ 2,638	\$ 2,448	\$ 190	8%
Percentage of total revenue	1%	1%		

The provision for income taxes increased \$0.2 million, or 8%, in the year ended December 31, 2017 compared to the year ended December 31, 2016. In 2017, we recorded a tax provision on earnings with an effective tax rate of 16.7% compared to 27.4% in 2016. Our lower effective tax rate during 2017 is primarily the result of discrete items recorded including IPO deductible costs and higher excess tax deductions relating to stock-based compensation awards. Our lower effective tax rate during 2017 was also driven by higher R&D tax credits.

Income (Loss) from Operations by Segment

	Year Ended December 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
United States	\$ 41,586	\$ 27,461	\$ 14,125	51%
International	(26,312)	(18,890)	(7,422)	(39)
Total	\$ 15,274	\$ 8,571	\$ 6,703	78%
Percentage of segment revenue:				
United States	14%	14%		
International	NM	NM		

NM — Not Meaningful

U.S. income from operations increased \$14.1 million, or 51%, in the year ended December 31, 2017 compared to the year ended December 31, 2016. This increase was due to an increase in revenue of \$111.6 million, offset in part by the increases in cost of revenue of \$6.5 million and operating expenses of \$91.0 million.

International loss from operations increased \$7.4 million in the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase in International loss from operations reflects our continued investment into international markets and expansion into new countries.

Liquidity and Capital Resources

Cash, Cash Equivalents and Investments

At December 31, 2018 and 2017, our principal sources of liquidity were cash and cash equivalents of \$34.9 million and \$87.7 million, respectively and investments in certificates of deposit with terms of greater than 90 days but less than one year of \$122.8 million and \$50.0 million, respectively.

Sources and Uses of Cash

Our cash flows from operating, investing, and financing activities, as reflected in the consolidated statements of cash flows, are summarized in the following table:

	Year Ended December 31,		
	2018	2017	2016
		(in thousands)	
Net cash provided by operating activities	\$ 51,723	\$ 25,691	\$ 20,004
Net cash used in investing activities	(80,278)	(12,598)	(51,992)
Net cash (used in) provided by financing activities	(23,395)	44,780	690
Impact of foreign currency on cash	(44)	159	(45)
Net (decrease) increase in cash, cash equivalents, and restricted cash	<u>\$ (51,994)</u>	<u>\$ 58,032</u>	<u>\$ (31,343)</u>

Our operations have been financed primarily from operating activities, sales of preferred stock and our IPO. We generated cash from operating activities of \$51.7 million during 2018, \$25.7 million during 2017 and \$20.0 million during 2016, and we expect to generate cash from operations for the foreseeable future.

We believe that our existing sources of liquidity will be sufficient to fund our operations for at least the next 12 months from the date of the filing of this Annual Report on Form 10-K. However, our future capital requirements will depend on many factors, including our rate of revenue growth, the expansion of our sales and marketing activities, the support of our product, technology, and development efforts, and the timing and extent of our investment in international markets. To the extent that existing cash, cash equivalents, and investments and cash from operations are insufficient to fund our future activities, we may need to raise additional funds through public or private equity or debt financing. Additional funds may not be available on terms favorable to us, or at all.

Operating Activities

Cash provided by operating activities during 2018 was \$51.7 million, due primarily to net income of \$65.2 million, adjusted for non-cash items including \$20.8 million of stock-based compensation expense, \$5.0 million of depreciation and amortization and \$3.7 of amortization of deferred contract costs due to the adoption of ASC 606, partially offset by \$39.0 million of deferred taxes. Cash provided by operating activities was also attributable to a \$9.3 million increase in accounts payable, a \$4.5 million increase in deferred revenue and a \$4.3 million increase in deferred rent, partially offset by a \$13.0 million increase in deferred contract costs resulting from the adoption of ASC 606, and an \$11.8 million increase prepaid expenses, prepaid income taxes, and other assets.

Cash provided by operating activities during 2017 was \$25.7 million, due primarily to net income of \$13.2 million, non-cash items including \$5.0 million of stock-based compensation expense and \$3.8 million of depreciation and amortization, a \$6.2 million increase in accounts payable, and a \$5.2 million increase in accrued expenses. These increases were partially offset by a \$7.0 million increase in accounts receivable and a \$2.3 million increase in prepaid expenses and other assets.

Cash provided by operating activities during 2016 was \$20.0 million. This was due primarily to net income of \$6.5 million, an increase in accounts payable of \$5.8 million, primarily related to higher marketing costs, an increase in accrued expenses of \$4.1 million due to higher accrued bonuses and commissions, an increase of \$1.9 million in deferred revenue related to customer prepayments, and an increase in deferred rent of \$1.9 million related to new office space. These increases were partially offset by a \$2.2 million increase in prepaid expenses primarily related to income tax payments and a \$1.4 million increase in accounts receivable due to revenue growth.

Investing Activities

Our investing activities consist primarily of purchases of property and equipment, capitalized website development costs, and short-term investments.

Cash used in investing activities of \$80.3 million during 2018 was due to \$212.8 million of investments in certificates of deposit, net of maturities of \$140.0 million, \$6.0 million of investments in furniture, computer equipment, and leasehold improvements, and \$1.5 million related to the capitalization of website development costs.

Cash used in investing activities of \$12.6 million during 2017 was due to \$50.0 million of investments in certificates of deposit, net of maturities of \$44.8 million, \$5.2 million of investments in furniture, computer equipment, and leasehold improvements, and \$2.2 million related to the capitalization of website development costs.

Cash used in investing activities of \$52.0 million during 2016 was due to \$59.8 million of investments in certificates of deposit, net of maturities of \$15.0 million, \$5.8 million of investments in furniture, computer equipment, and leasehold improvements, and \$1.4 million related to the capitalization of website development costs.

Financing Activities

Cash used in financing activities of \$23.4 million during 2018 reflects \$25.9 million of payment of withholding taxes on net share settlements of equity awards, and a \$1.1 million payment of IPO costs, partially offset by \$3.6 million related to the proceeds from the exercise of stock options.

Cash provided by financing activities of \$44.8 million during 2017 primarily reflects \$44.4 million of IPO proceeds, net of offering costs and \$0.4 million related to the proceeds from the exercise of stock options.

Cash provided by financing activities of \$0.7 million during 2016 primarily reflects \$59.7 million of proceeds from the issuance of Series E Preferred Stock, net of issuance costs, and a tax benefit of \$0.8 million related to the exercise of stock options, which was partially offset by \$60.0 million used for the repurchase of previously issued preferred stock, common stock, vested options, and restricted stock units.

Contractual Obligations and Known Future Cash Requirements

Our lease obligations consist of various leases for office space in Cambridge, Massachusetts; Detroit, Michigan; and Dublin, Ireland with various lease terms through October 2033. The terms of our Massachusetts lease agreements provide for rental payments that increase on an annual basis. We recognize rent expense on a straight-line basis over the lease period. We do not have any debt or material capital lease obligations as of December 31, 2018 and all of our property, equipment, and software have been purchased with cash, with the exception of \$5.3 million of unpaid property and equipment costs at December 31, 2018. We have no material long-term purchase obligations outstanding with any vendors or third parties.

Set forth below is information concerning our known contractual obligations at December 31, 2018 that are fixed and determinable.

	Total	Less than 1 year	13 years (in thousands)	35 years	More than 5 years
Operating lease obligations	\$ 87,975	\$ 11,509	\$ 22,261	\$ 16,560	\$ 37,645
Total contractual obligations	<u>\$ 87,975</u>	<u>\$ 11,509</u>	<u>\$ 22,261</u>	<u>\$ 16,560</u>	<u>\$ 37,645</u>

As further described in Note 14 of our Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K, on January 8, 2019 we completed an acquisition pursuant to which we paid an aggregate of 15.0 million GBP, or approximately \$19.1 million, which amount is inclusive of 1.0 million GBP, or approximately \$1.3 million, that will be held in escrow to secure post-closing claims.

Off-Balance Sheet Arrangements

As of December 31, 2018 and 2017, we did not have any off-balance sheet arrangements, except for operating leases entered into in the normal course of business, that have or are reasonably likely to have a current or future material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures, or capital resources.

Critical Accounting Policies and Significant Estimates

In preparing our consolidated financial statements in accordance with GAAP, we are required to make estimates and assumptions that affect the amounts of assets, liabilities, revenue, costs and expenses, and disclosure of contingent assets and liabilities that are reported in the consolidated financial statements and accompanying disclosures. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ from these estimates.

We believe that of our significant accounting policies, which are described in Note 2 to the notes to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K, the following accounting policies involve a greater degree of judgment and complexity. Accordingly, these are the policies we believe are the most critical to aid in fully understanding and evaluating our consolidated financial condition and results of our operations.

Revenue Recognition

We derive revenue from two primary sources: (1) marketplace subscription revenue, which consists of listing subscriptions, display advertising subscriptions with dealers and dealer search engine marketing subscriptions, and (2) advertising and other revenue, which consists primarily of display advertising revenue from auto manufacturers and other auto-related brand advertisers.

Marketplace Subscription Revenue

We offer three types of marketplace Listing products to dealers: Basic Listing, which is free; and Enhanced or Featured Listing, which require a paid subscription under a monthly, quarterly, semiannual, or annual subscription basis. Contractual subscriptions for customers generally auto-renew on a monthly basis and are cancellable by dealers with 30-days' advance notice. We also offer Listing dealers access to the Dealer Dashboard, which includes a performance summary, Dealer Insights tool, user review management platform, Pricing Tool, and Market Analysis tool. The Pricing Tool and Market Analysis tool are available only to paying dealers. Subscription pricing is determined based on a dealer's inventory size, region, and our assessment of the connections and ROI the platform will provide them.

Customers do not have the right to take possession of our software.

In addition to listing inventory in the marketplace and providing access to the Dealer Dashboard, we offer Enhanced and Featured Listing dealers other subscription advertising and customer acquisition products, including display advertising that appears in our marketplace and on other sites on the internet. This advertising can be targeted by geography, search history, and a number of other factors, and dealer search engine marketing, which helps dealers more effectively acquire customers through paid search, social media, and retargeted advertising.

Payment is typically due on first day of each calendar month and is recorded as accounts receivable or short-term deferred revenue when payment is received in advance of services being delivered to the customers.

Advertising and Other Revenue

Advertising and other revenue consists primarily of non-dealer display advertising revenue from auto manufacturers and other auto-related brand advertisers sold on a cost per thousand impressions, or CPM, basis. An impression is an advertisement loaded on a web page. In addition to advertising sold on a CPM basis, we also have advertising sold on a cost per click basis. Auto manufacturers and other brand advertisers can execute advertising campaigns that are targeted across a wide variety of parameters, including demographic groups, behavioral characteristics, specific auto brands, categories such as Certified Pre-Owned, and segments such as hybrid vehicles. We do not provide minimum impression guarantees or other types of minimum guarantees in our contracts with customers. Pricing is primarily based on advertisement size and position on our websites and mobile applications, and fees are billed monthly in arrears. Unbilled accounts receivables relate to services rendered in the current period, but not invoiced until the subsequent period.

We sell advertising directly to auto manufacturers and other auto related brand advertisers, as well as indirectly through revenue sharing arrangements with advertising exchange partners. Company-sold advertising is not subject to revenue sharing arrangements. Company-sold advertising revenue is recognized based on the gross amount charged to the advertiser. Partner-sold advertising revenue is recognized based on the net amount of revenue received from the content partners.

Revenue from advertising sold directly by us is recorded on a gross basis because we are the principal in the arrangement, control the ad placement and timing of the campaign, and establish the selling price. We enter into contractual arrangements directly with advertisers and are directly responsible for the fulfillment of the contractual terms including any remedy for issues with such fulfillment.

Advertising revenue subject to revenue sharing agreements between us and advertising exchange partners is recognized based on the net amount of revenue received from the partner. The advertising partner is responsible for fulfillment, including the acceptability of the services delivered. In partner-sold advertising arrangements, the advertising partner has a direct contractual relationship with the advertiser. There is no contractual relationship between us and the advertiser for partner sold transactions. When an advertising exchange partner sells advertisements, the partner is responsible for fulfilling the advertisements, and accordingly, we have determined the advertising partner is the principal in the arrangement. Additionally, for auction-based partner agreements, we have latitude in establishing the floor price, but the final price is established by the exchange server at market rates.

Customers are billed monthly in arrears and payment terms are generally thirty to sixty days from the date invoiced.

Prior to adoption of ASC 606

We recognize revenue when all of the following conditions are satisfied: (1) there is persuasive evidence of an arrangement; (2) the service has been provided to the customer; (3) the collection of fees is reasonably assured; and (4) the amount of fees to be paid by the customer is fixed or determinable.

We recognize marketplace subscription revenue on a monthly basis as revenue is earned and advertising and other revenue as impressions are delivered. Revenue is presented net of any taxes collected from customers.

We assess arrangements with multiple deliverables under ASU No. 2009-13, Revenue Recognition (Topic 605), *Multiple-Deliverable Revenue Arrangements — a Consensus of the FASB Emerging Issues Task Force*. Pursuant to ASU 2009-13, in order to treat deliverables in a multiple-element arrangement as separate units of accounting, the deliverables must have stand-alone value upon delivery. If the deliverables have stand-alone value upon delivery, we account for each deliverable separately. We have concluded that each element in the arrangement has stand-alone value as the individual services can be sold separately. In addition, there is no right of refund once a service has been delivered. Therefore, we have concluded each element of the arrangement is a separate unit of accounting. While these arrangements are considered multiple element-arrangements, the recognition of the units of accounting follow a consistent ratable recognition given the pattern over which services are provided.

We establish sales allowances at the time of revenue recognition based on our history of adjustments and credits provided to our customers. Sales allowances relate primarily to credits issued for service interruption. In assessing the adequacy of the sales allowance, we evaluate our history of adjustments and credits made through the date of the issuance of the financial statements. Estimated sales adjustments and credits and ultimate losses may vary from actual results which could be material to the financial statements; however, to date, actual sales allowances have been materially consistent with our estimates. Sales allowances are recorded as a reduction to revenue in the consolidated statements of operations.

Post adoption of ASC 606

In May 2014, the Financial Accounting Standards Board, or FASB, issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which modifies how all entities recognize revenue, and consolidates revenue recognition guidance into one ASC Topic (ASC Topic 606, *Revenue from Contracts with Customers*). Since we ceased to be an emerging growth company as of December 31, 2018, we adopted the standard during the fourth quarter of 2018 and applied the modified retrospective method of adoption with a cumulative catch-up adjustment to the opening balance of retained earnings at January 1, 2018. Under this method, we applied the revised guidance for the year of adoption and applied ASC Topic 605, *Revenue Recognition*, or ASC 605, in the prior years. As a result, we applied ASC 606 only to contracts that were not yet completed as of January 1, 2018. We recognized a cumulative catch-up adjustment to the opening balance of retained earnings at the effective date for contracts that still required performance by us on January 1, 2018. For contracts that were modified before the effective date, we exercised the use of the practical expedient and reflected the aggregate effect of all modifications when identifying performance obligations, determining the transaction price and allocating transaction price, which did not have a material effect on the adjustment to retained earnings.

ASC 606 outlines a comprehensive five-step revenue recognition model based on the principle that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve this core principle, we apply the following five steps:

- 1) *Identify the contract with a customer*
- 2) *Identify the performance obligations in the contract*
- 3) *Determine the transaction price*
- 4) *Allocate the transaction price to performance obligations in the contract*
- 5) *Recognize revenue when or as we satisfy a performance obligation*

Disaggregation of Revenue

The following table summarizes revenue from contracts with customers by revenue source for the year ended December 31, 2018.

	Year Ended December 31, 2018	
Revenue by Revenue Stream		
Marketplace subscription revenue	\$	405,780
Advertising and other revenue		48,306
Total	\$	454,086

We provide disaggregation of revenue based on the marketplace subscription versus advertising and other revenue classification in the table above and based on geographic region (see Note 11) as we believe these categories best depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors.

Marketplace Subscription Revenue

For dealer listings, we provide a single similar service each day for a period of time. Each time increment (i.e. day), rather than the underlying activities, is distinct and substantially the same and therefore our performance obligation is to provide a series of daily activities over the contract term. Similar to the dealer listings, the display advertising is considered a promise to provide a single similar service each day. Each time increment is distinct and substantially the same and therefore our performance obligation is to provide a series of daily activities over the contract term.

Total consideration for marketplace subscription revenue is stated within the contracts. There are no contractual cash refund rights, but credits may be issued to a customer at our sole discretion. At an individual contract level, there is also no variable consideration, such as sales allowance, that needs to be included in the transaction price. However, at a portfolio level, we recognize that there are times when there is a customer satisfaction issue or other circumstance that will lead to a credit. Due to the known possibility of future credits, a monthly sales allowance review is performed to defer revenue at a portfolio level for such future adjustments in the period of incurrence. We establish sales allowances at the time of revenue recognition based on our history of adjustments and credits provided to our customers. In assessing the adequacy of the sales allowance, we evaluate our history of adjustments and credits made through the date of the issuance of the financial statements. Estimated sales adjustments, credits and losses may vary from actual results which could lead to material adjustments to the financial statements. To date, actual sales allowances have been materially consistent with our estimates. Sales allowances are recorded as a reduction to revenue in the consolidated statements of operations.

Performance obligations are satisfied over time as the customer simultaneously receives and consumes the benefit of the service. Revenue is recognized ratably over the subscription period beginning on the date our online products are made available to the customers. Revenue is presented net of any taxes collected from customers.

Advertising and Other Revenue

For advertising revenue, the performance obligation is to publish the agreed upon campaign on our websites and load the related impressions.

Advertising contracts state the transaction price within the agreement with payment being based on the number of clicks or impressions delivered on our websites. Total consideration is based on output and deemed variable consideration constrained by an agreed upon delivery schedule. Additionally, there are generally no contractual cash refund rights. Certain contracts do contain the right for credits in situations in which impressions are not displayed in compliance with contractual specifications. At an individual contract level, we may give a credit for a customer satisfaction issue or other circumstance. Due to the known possibility of future credits, a monthly review is performed to defer revenue at an individual contract level for such future adjustments in the period of incurrence.

As consideration is driven by the number of impressions delivered on the CarGurus websites, the consideration for each period is allocated to the period in which the service was rendered.

Performance obligations for company-sold advertising revenue and partner-sold advertising revenue are satisfied over time as impressions are delivered. Revenue is recognized based on the total number of impressions delivered within the specified period. Revenue from advertising sold directly by us is recognized based on the gross amount charged to the advertiser and advertising revenue sold by partners is recognized based on the net amount of revenue received from the content partners. Revenue is presented net of any taxes collected from customers.

For other revenue, performance obligations are satisfied over time as services are rendered and revenue is recognized as it is earned.

Contracts with Multiple Performance Obligations

We periodically enter into arrangements that include Dealer Listing and Display within marketplace subscription revenue. These contracts include multiple promises that we evaluate to determine if the promises are separate performance obligations. Performance obligations are identified based on services to be transferred to a customer that are distinct within the context of the contractual terms. Once the performance obligations have been identified, we determine the transaction price, which includes estimating the amount of variable consideration to be included in the transaction price, if any. If required, the transaction price is allocated to each performance obligation in the contract based on a relative SSP method as the performance obligation is being satisfied. For our arrangements that include Dealer Listing and Display, the performance obligations were satisfied over a consistent period of time and therefore the allocations did not impact the revenue recognized.

Costs to Obtain a Contract

Commissions paid to sales representatives and payroll taxes are considered costs to obtain a contract. Under the new guidance, the costs to obtain a contract require capitalization and amortization of those costs over the period of benefit. Although the new guidance specifies the accounting for an individual contract with a customer, as a practical expedient, we have opted to apply the guidance to a portfolio of contracts with similar characteristics. We have opted to apply another practical expedient to immediately expense the incremental cost of obtaining a contract when the underlying related asset would have been amortized over one year or less. As such, we applied this practical expedient to advertising contracts as the term is one year or less and these contracts do not renew automatically. The practical expedient is not applicable to marketplace subscription contracts as the period of benefit including renewals is anticipated to be greater than one year as commissions paid on contract renewals are not commensurate with the commissions paid on the initial contract. The assets are periodically assessed for impairment.

For marketplace subscription customers, the commissions paid on contracts with new customers, in addition to any commission amount related to incremental sales, are capitalized and amortized over the estimated benefit period of the customer relationship taking into account factors such as peer estimates of technology lives and customer lives as well as our own historical data. Commissions paid that are not directly related to obtaining a new contract are expensed as incurred.

Additionally, we allocate employer payroll tax expense to the commission expense in proportion to the overall payroll taxes paid during the respective period. As such, capitalized payroll taxes are amortized in the same manner as the underlying capitalized commissions.

Capitalized Website and Software Development Costs

We capitalize certain costs associated with the development of our websites and internal-use software products after the preliminary project stage is complete and until the software is ready for its intended use. Research and development costs incurred during the preliminary project stage or costs incurred for data conversion activities, training, maintenance, and general and administrative or overhead costs are expensed as incurred. Capitalization begins when the preliminary project stage is complete, management authorizes and commits to the funding of the software project with the required authority, it is probable the project will be completed, the software will be used to perform the functions intended and certain functional and quality standards have been met. Qualified costs incurred during the operating stage of our software applications relating to upgrades and enhancements are capitalized to the extent it is probable that they will result in added functionality, while costs that cannot be separated between maintenance of, and minor upgrades and enhancements to, internal-use software are expensed as incurred.

Capitalized website and software development costs are amortized on a straight-line basis over their estimated useful life of three years beginning with the time when it is ready for intended use. Management evaluates the useful lives of these assets on an annual basis and tests for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets.

During the years ended December 31, 2018 and 2017, we capitalized \$2.0 million and \$2.2 million of website development costs, respectively. We recorded amortization expense associated with our capitalized website development costs of \$1.5 million, \$0.8 million and \$0.3 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Income Taxes

We account for income taxes in accordance with the liability method. Under this method, deferred tax assets and liabilities are recognized based on temporary differences between the financial reporting and income tax bases of assets and liabilities using statutory rates. In addition, this method requires a valuation allowance against net deferred tax assets if, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

We account for uncertain tax positions recognized in the consolidated financial statements by prescribing a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Interest and penalties, if applicable, related to uncertain tax positions would be recognized as a component of income tax expense. We have no recorded liabilities for uncertain tax positions as of December 31, 2018 or 2017.

Stock-Based Compensation

We recognize stock-based compensation for stock-based awards, including stock options and RSUs, based on the estimated fair value of the awards. Through the period ended December 31, 2016, we applied an estimated forfeiture rate in determining the total stock-based compensation expense to record for the period. On January 1, 2017, we adopted ASU 2016-09 and elected to account for forfeitures when they occur, on a modified retrospective basis. The cumulative effect adjustment related to this accounting policy change for forfeitures was not material. We recognize compensation expense for service-based awards on a straight-line basis over the requisite service period for each separate vesting portion of the award, with the amount of compensation expense recognized at any date at least equaling the portion of the grant-date fair value of the award that is vested at that date.

For RSUs issued under our stock-based compensation plans, the fair value of each grant is calculated based on the estimated fair value of our common stock on the date of grant. We estimate the fair value of most stock option awards on the date of grant using the Black-Scholes option-pricing model. Certain stock option awards that have an exercise price that is materially above the current estimated fair market value of our common stock are considered to be “deeply out of the money,” and are valued at the date of grant using a binomial lattice option-pricing model. The fair value of each option grant issued under our stock-based compensation plans that is not considered “deeply out of the money” was estimated using the Black-Scholes option-pricing model.

RSUs granted prior to our IPO were subject to both a service-based vesting and a performance-based vesting condition achieved upon a liquidity event, defined as either a change of control or an initial public offering of our common stock. Prior to October 11, 2017, we had not recognized compensation cost related to stock-based awards with these performance conditions as the liquidity event had not occurred. The Securities and Exchange Commission's declaration of effectiveness of our registration statement on Form S-1 on October 11, 2017 satisfied the liquidity event performance condition. The cumulative unrecognized stock-based compensation expense related to these awards was \$2.5 million through October 11, 2017.

We determined the assumptions for the Black-Scholes option-pricing model as discussed below. Each of these inputs is subjective and generally requires significant judgment to determine.

- *Fair Value of Our Common Stock.* Prior to our IPO, our stock was not publicly traded, and therefore we estimated the fair value of our common stock through obtaining contemporaneous third-party valuations. Subsequent to the IPO, we determine the fair value of our common stock based on the closing share price on the date of grant.
- *Expected Term.* The expected term represents the period that the stock-based awards are expected to be outstanding. The expected term of stock options granted has been determined using the simplified method, which uses the midpoint between the vesting date and the contractual term.
- *Risk-Free Interest Rate.* The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the date of grant for zero-coupon U.S. Treasury constant maturity notes with terms approximately equal to the stock-based award's expected term.
- *Expected Volatility.* Because we did not have a trading history of our common stock prior to our IPO, the expected volatility was derived from the average historical stock volatilities of several public companies within our industry that we consider to be comparable to our business over a period equivalent to the expected term of the stock-based awards.
- *Dividend Rate.* The expected dividend is zero as we have not paid and do not anticipate paying any dividends in the foreseeable future.

If any of the assumptions used in the Black-Scholes model change significantly, stock-based compensation for future awards may differ materially compared with the awards granted previously.

No options were granted during the years ended December 31, 2018 and 2017. The weighted average fair values of options granted during the year ended December 31, 2016 was \$0.90. The weighted average assumptions utilized to determine the fair value of options granted are presented in the following table:

	<u>2016</u>
Expected dividend yield	—
Expected volatility	49%
Risk-free interest rate	1.57%
Expected term (in years)	6.07

Recently Issued Accounting Pronouncements

Information concerning recently issued accounting pronouncements may be found in Note 2 to our consolidated financial statements appearing elsewhere in this Annual Report on Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

Market risk represents the risk of loss that may affect our financial position due to adverse changes in financial market prices and rates. We are exposed to market risks.

Interest Rate Risk

We did not have any long-term borrowings as of December 31, 2018 or 2017.

We had cash, cash equivalents, and investments of \$157.7 million and \$137.7 million at December 31, 2018 and 2017, respectively, which consist of bank deposits, money market funds and certificates of deposit with maturity dates ranging from six to nine months. Such interest-earning instruments carry a degree of interest rate risk.

We do not enter into investments for trading or speculative purposes and have not used any derivative financial instruments to manage our interest rate risk exposure.

Inflation Risk

We do not believe that inflation has had a material effect on our business, financial condition, or results of operations to date. However, if our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, operating results, and financial condition.

Foreign Currency Exchange Risk

Historically, because our operations and sales have been primarily in the United States, we have not faced any significant foreign currency risk. As of December 31, 2018 and December 31, 2017, we have foreign currency exposures in the British pound, the Euro and the Canadian dollar, although such exposure is not significant.

Our foreign subsidiaries have intercompany accounts that are eliminated upon consolidation, and these accounts expose us to foreign currency exchange rate fluctuations. Exchange rate fluctuations on short-term intercompany accounts are recorded in our consolidated statements of operations under the heading other income (expense).

As we expand internationally, our risks associated with fluctuation in currency rates will become greater, and we will continue to reassess our approach to managing these risks.

Item 8. Financial Statements and Supplementary Data.

CarGurus, Inc.

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To the Stockholders and the Board of Directors of CarGurus, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of CarGurus, Inc. (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income, convertible preferred stock and stockholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 28, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Adoption of ASU No. 2014-09

As discussed in Note 2 to the consolidated financial statements, the Company changed its method of accounting for revenue and the capitalization and amortization of certain contract acquisition costs in 2018 due to the adoption of Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers (Topic 606), and the related amendments.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2016.

Boston, Massachusetts
February 28, 2019

Consolidated Balance Sheets

(in thousands, except share and per share data)

	At December 31,	
	2018	2017
Assets		
Current assets:		
Cash and cash equivalents	\$ 34,887	\$ 87,709
Investments	122,800	50,000
Accounts receivable, net of allowance for doubtful accounts of \$479 and \$494, respectively	13,614	12,577
Prepaid expenses and prepaid income taxes	10,144	5,313
Deferred contract costs	5,253	—
Other current assets	7,410	1,605
Restricted cash	750	—
Total current assets	194,858	157,204
Property and equipment, net	24,269	16,563
Restricted cash	1,921	1,843
Deferred tax assets	38,886	825
Deferred contract costs, net of current portion	7,252	—
Other long-term assets	1,104	159
Total assets	\$ 268,290	\$ 176,594
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 34,345	\$ 23,908
Accrued expenses, accrued income taxes and other current liabilities	18,654	13,588
Deferred revenue	8,811	4,305
Deferred rent	1,693	1,165
Total current liabilities	63,503	42,966
Deferred rent, net of current portion	9,395	5,648
Other non-current liabilities	1,281	955
Total liabilities	74,179	49,569
Commitments and contingencies (Note 6)		
Stockholders' equity:		
Preferred stock, \$0.001 par value; 10,000,000 shares authorized; no shares issued and outstanding	—	—
Class A common stock, \$0.001 par value; 500,000,000 shares authorized; 89,728,223 and 77,884,754 shares issued and outstanding at December 31, 2018 and 2017, respectively	90	78
Class B common stock, \$0.001 par value; 100,000,000 shares authorized; 20,702,084 and 28,226,104 shares issued and outstanding at December 31, 2018 and 2017, respectively	21	28
Additional paid-in capital	184,216	185,190
Retained earnings (accumulated deficit)	9,713	(58,499)
Accumulated other comprehensive income	71	228
Total stockholders' equity	194,111	127,025
Total liabilities and stockholders' equity	\$ 268,290	\$ 176,594

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Operations

(in thousands, except share and per share data)

	Year Ended December 31,		
	2018	2017	2016
Revenue	\$ 454,086	\$ 316,861	\$ 198,141
Cost of revenue ⁽¹⁾	24,811	17,609	9,575
Gross profit	429,275	299,252	188,566
Operating expenses:			
Sales and marketing	315,939	236,165	154,125
Product, technology, and development	47,866	22,470	11,453
General and administrative	39,475	22,688	12,783
Depreciation and amortization	2,804	2,655	1,634
Total operating expenses	406,084	283,978	179,995
Income from operations	23,191	15,274	8,571
Other income, net:			
Interest income	2,283	869	416
Other income (expense)	10	(306)	(42)
Total other income, net	2,293	563	374
Income before income taxes	25,484	15,837	8,945
(Benefit from) provision for income taxes	(39,686)	2,638	2,448
Net income	65,170	\$ 13,199	\$ 6,497
Reconciliation of net income to net income (loss) attributable to common stockholders:			
Net income	65,170	\$ 13,199	\$ 6,497
Deemed dividend to preferred stockholders	—	—	(32,087)
Net income attributable to participating securities	—	(6,098)	—
Net income (loss) attributable to common stockholders — basic	65,170	\$ 7,101	\$ (25,590)
Net income	65,170	\$ 13,199	\$ 6,497
Deemed dividend to preferred stockholders	—	—	(32,087)
Net income attributable to participating securities	—	(5,829)	—
Net income (loss) attributable to common stockholders — diluted	65,170	\$ 7,370	\$ (25,590)
Net income (loss) per share attributable to common stockholders: (Note 9)			
Basic	\$ 0.60	\$ 0.13	\$ (0.58)
Diluted	\$ 0.57	\$ 0.12	\$ (0.58)
Weighted-average number of shares of common stock used in computing net income (loss) per share attributable to common stockholders:			
Basic	108,833,028	55,835,265	44,138,922
Diluted	113,364,712	60,637,584	44,138,922

(1) Includes depreciation and amortization expense for the years ended December 31, 2018, 2017, and 2016 of \$2,225 \$1,140, and \$438, respectively.

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Comprehensive Income

(in thousands)

	Year Ended December 31,		
	2018	2017	2016
Net income	\$ 65,170	\$ 13,199	\$ 6,497
Other comprehensive income:			
Foreign currency translation adjustment	(157)	258	(30)
Comprehensive income	<u>\$ 65,013</u>	<u>\$ 13,457</u>	<u>\$ 6,467</u>

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit)

(in thousands, except share data)

	Series A Preferred Stock		Series B Preferred Stock		Series C Preferred Stock		Series D Preferred Stock		Series E Preferred Stock		Class A Common Stock		Class B Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Retained Earnings (Accumulated Deficit)	Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at December 31, 2015	3,049,606	\$ 1,601	3,296,054	\$ 2,574	1,567,855	\$ 1,331	1,673,105	\$ 67,872	—	\$ —	14,879,954	\$ 15	29,759,908	\$ 30	\$ 2,434	\$ —	\$ (18,610)	\$ (16,131)
Net income	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,497	6,497
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	322	—	—	322
Issuance of common stock upon exercise of stock options	—	—	—	—	—	—	—	—	—	—	41,224	—	82,448	—	137	—	—	137
Tax benefit related to exercise of stock options	—	—	—	—	—	—	—	—	—	—	—	—	—	—	821	—	—	821
Issuance of Series E convertible preferred stock, net of issuance costs of \$280	—	—	—	—	—	—	—	—	1,107,202	59,732	—	—	—	—	—	—	—	—
Repurchase of stock	(224,903)	(118)	(357,568)	(279)	(17,243)	(15)	—	—	—	—	(899,046)	(1)	(1,798,092)	(2)	—	—	(59,585)	(59,588)
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(30)	(30)
Balance at December 31, 2016	2,824,703	1,483	2,938,486	2,295	1,550,612	1,316	1,673,105	67,872	1,107,202	59,732	14,022,132	14	28,044,264	28	3,714	(30)	(71,698)	(67,972)
Net income	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13,199	13,199
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,204	—	—	5,204
Issuance of common stock upon exercise of stock options	—	—	—	—	—	—	—	—	—	—	92,944	—	181,840	—	398	—	—	398
Issuance of common stock from public offering, net of offering costs	—	—	—	—	—	—	—	—	—	—	3,205,000	3	—	—	43,237	—	—	43,240
Conversion of preferred stock	(2,824,703)	(1,483)	(2,938,486)	(2,295)	(1,550,612)	(1,316)	(1,673,105)	(67,872)	(1,107,202)	(59,732)	60,564,678	61	—	—	132,637	—	—	132,698
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	258	258
Balance at December 31, 2017	—	—	—	—	—	—	—	—	—	—	77,884,754	78	28,226,104	28	185,190	228	(58,499)	127,025
Net income	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65,170	65,170
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21,284	—	—	21,284
Issuance of common stock upon exercise of stock options	—	—	—	—	—	—	—	—	—	—	3,186,489	3	10,690	—	3,629	—	—	3,632
Issuance of common stock upon vesting of restricted stock units	—	—	—	—	—	—	—	—	—	—	1,781,201	2	—	—	(2)	—	—	—
Payment of withholding taxes on net share settlements of equity awards	—	—	—	—	—	—	—	—	—	—	(658,931)	—	—	—	(25,885)	—	—	(25,885)
Cumulative adjustment from adoption of revenue recognition standard (Note 2)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,042	3,042
Conversion of common stock	—	—	—	—	—	—	—	—	—	—	7,534,710	7	(7,534,710)	(7)	—	—	—	—
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(157)	(157)
Balance at December 31, 2018	—	\$ —	—	\$ —	—	\$ —	—	\$ —	—	\$ —	89,728,223	\$ 90	20,702,084	\$ 21	\$ 184,216	\$ 71	\$ 9,713	\$ 194,111

The accompanying notes are an integral part of these consolidated financial statements.

CarGurus, Inc.

Consolidated Statements of Cash Flows

(in thousands)

	Year Ended December 31,		
	2018	2017	2016
Operating Activities			
Net income	\$ 65,170	\$ 13,199	\$ 6,497
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	5,029	3,795	2,072
Unrealized currency (gain) loss on foreign denominated transactions	(190)	128	—
Deferred taxes	(39,040)	(1,117)	782
Provision for doubtful accounts	1,680	1,117	508
Stock-based compensation expense	20,794	5,028	322
Amortization of deferred contract costs	3,689	—	—
Excess tax benefit related to exercise of stock options	—	—	(821)
Changes in operating assets and liabilities:			
Accounts receivable, net	(1,911)	(7,039)	(1,432)
Prepaid expenses, prepaid income taxes, and other assets	(11,753)	(2,287)	(2,226)
Deferred contracts costs	(12,987)	—	—
Accounts payable	9,345	6,244	5,811
Accrued expenses, accrued income taxes and other current liabilities	2,695	5,191	4,118
Deferred revenue	4,508	962	1,856
Deferred rent	4,289	227	1,927
Other non-current liabilities	405	243	590
Net cash provided by operating activities	<u>51,723</u>	<u>25,691</u>	<u>20,004</u>
Investing Activities			
Purchases of property and equipment	(5,956)	(5,157)	(5,846)
Capitalization of website development costs	(1,522)	(2,215)	(1,372)
Investments in certificates of deposit	(212,800)	(50,000)	(59,774)
Maturities of certificates of deposit	140,000	44,774	15,000
Net cash used in investing activities	<u>(80,278)</u>	<u>(12,598)</u>	<u>(51,992)</u>
Financing Activities			
Initial public offering proceeds	—	47,690	—
Payment of initial public offering costs	(1,142)	(3,308)	—
Proceeds from issuance of preferred stock	—	—	59,732
Proceeds from exercise of stock options	3,632	398	137
Excess tax benefit related to exercise of stock options	—	—	821
Cash paid for repurchase of preferred stock, common stock, and vested options	—	—	(60,000)
Payment of withholding taxes on net share settlements of equity awards	(25,885)	—	—
Net cash (used in) provided by financing activities	<u>(23,395)</u>	<u>44,780</u>	<u>690</u>
Impact of foreign currency on cash, cash equivalents, and restricted cash	(44)	159	(45)
Net (decrease) increase in cash, cash equivalents, and restricted cash	(51,994)	58,032	(31,343)
Cash, cash equivalents, and restricted cash at beginning of period	89,552	31,520	62,863
Cash, cash equivalents, and restricted cash at end of period	<u>\$ 37,558</u>	<u>\$ 89,552</u>	<u>\$ 31,520</u>
Supplemental disclosure of cash flow information:			
Cash paid for income taxes	\$ 2,308	\$ 4,393	\$ 2,045
Cash paid for interest	\$ 19	\$ 29	\$ 26
Supplemental disclosure of non-cash investing and financing activities:			
Unpaid purchases of property and equipment	\$ 5,287	\$ 510	\$ 476
Unpaid initial public offering costs	\$ —	\$ 1,142	\$ —
Capitalized stock-based compensation in website development costs	\$ 490	\$ 176	\$ —

The accompanying notes are an integral part of these consolidated financial statements.

Notes to Consolidated Financial Statements

(in thousands, except share and per share data, unless otherwise noted)

1. Organization and Business Description

CarGurus, Inc. (the “Company”), is a global, online automotive marketplace connecting buyers and sellers of new and used cars. Using proprietary technology, search algorithms, and innovative data analytics, the Company provides information and analysis that create a differentiated automotive search experience for consumers. The Company’s marketplace empowers users worldwide with unbiased third-party validation on pricing and dealer reputation, as well as other useful information that aids them in finding “Great Deals from Top-Rated Dealers.”

The Company is headquartered in Cambridge, Massachusetts and was incorporated in the State of Delaware on June 26, 2015. Prior to June 26, 2015, the Company operated as CarGurus LLC and was organized on November 10, 2005 as a limited liability company under the laws of the Commonwealth of Massachusetts. The Company operates principally in the United States and has also launched marketplaces in Canada, the United Kingdom, Germany, Italy, and Spain. The Company has wholly owned subsidiaries in the United States, Canada, Ireland, and the United Kingdom.

On October 16, 2017, the Company completed its initial public offering (“IPO”), in which the Company issued and sold 3,205,000 shares of its Class A common stock, including the full exercise by the underwriters of their option to purchase 705,000 shares of Class A common stock, at a public offering price of \$16.00 per share for aggregate gross proceeds of \$51.3 million. The Company received \$43.2 million in net proceeds after deducting \$3.6 million of underwriting discounts and commissions and \$4.5 million in offering costs. In addition to shares of Class A common stock issued and sold by the Company, certain selling stockholders sold an aggregate of 7,605,000 shares of Class A common stock, including the full exercise by the underwriters of their option to purchase 705,000 shares of Class A common stock, as part of the IPO. Upon the closing of the IPO, all of the outstanding shares of convertible preferred stock automatically converted into 20,188,226 shares of Class A common stock and 40,376,452 shares of Class B common stock. The 40,376,452 shares of Class B common stock subsequently converted into 40,376,452 shares of Class A common stock resulting in a total conversion of all outstanding shares of convertible preferred stock into 60,564,678 shares of Class A common stock. Subsequent to the closing of the IPO, there were no shares of convertible preferred stock outstanding.

The Company is subject to a number of risks and uncertainties common to companies in its and similar industries and stages of development including, but not limited to, rapid technological changes, competition from substitute products and services from larger companies, management of international activities, protection of proprietary rights, patent litigation, and dependence on key individuals.

2. Summary of Significant Accounting Policies

The accompanying consolidated financial statements reflect the application of certain significant accounting policies as described below and elsewhere in these notes to the consolidated financial statements. The Company believes that a significant accounting policy is one that is both important to the portrayal of the Company’s financial condition and results, and requires management’s most difficult, subjective, or complex judgments, often as the result of the need to make estimates about the effect of matters that are inherently uncertain.

Basis of Presentation

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“GAAP”). Any reference in these notes to applicable guidance is meant to refer to the authoritative U.S. generally accepted accounting principles as found in the Accounting Standards Codification (“ASC”) and Accounting Standards Update (“ASU”) of the Financial Accounting Standards Board (“FASB”).

In the consolidated statements of operations for the years ended December 31, 2017 and 2016, the Company has separately presented interest income from other income, net to conform to current year presentation due to the increase in amount during the year ended December 31, 2018 as compared to the year ended December 31, 2017 and 2016.

In the consolidated balance sheet as of December 31, 2017, the Company has separately presented other current assets from prepaid expenses and prepaid income taxes to conform to current year presentation due to the increase in the balance at December 31, 2018 as compared to December 31, 2017.

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period.

Significant estimates relied upon in preparing these consolidated financial statements include revenue recognition and revenue reserves, contingent liabilities, allowances for doubtful accounts, expected future cash flows used to evaluate the recoverability of long-lived assets, the expensing and capitalization of product, technology, and development costs for website development and internal-use software, the determination of the fair value of stock awards issued prior to the IPO, stock-based compensation expense, and the recoverability of the Company's net deferred tax assets.

Although the Company regularly assesses these estimates, actual results could differ materially from these estimates. Changes in estimates are recorded in the period in which they become known. The Company bases its estimates on historical experience and various other assumptions that it believes to be reasonable under the circumstances. Actual results may differ from management's estimates if these results differ from historical experience, or other assumptions do not turn out to be substantially accurate, even if such assumptions are reasonable when made.

Subsequent Events Considerations

The Company considers events or transactions that occur after the balance sheet date but prior to the issuance of the financial statements to provide additional evidence relative to certain estimates or to identify matters that require additional disclosure. Subsequent events have been evaluated as required. The Company has evaluated all subsequent events and determined that there are no material recognized or unrecognized subsequent events requiring disclosure, other than those disclosed in this Annual Report on Form 10-K.

Revenue Recognition

The Company derives its revenue from two primary sources: (1) marketplace subscription revenue, which consists of listing subscriptions, display advertising subscriptions with dealers and dealer search engine marketing subscriptions, and (2) advertising and other revenue, which consists primarily of display advertising revenue from auto manufacturers and other auto-related brand advertisers.

Marketplace Subscription Revenue

The Company offers three types of marketplace Listing products to dealers: Basic Listing, which is free; and Enhanced or Featured Listing, which require a paid subscription under a monthly, quarterly, semiannual, or annual subscription basis. Contractual subscriptions for customers generally auto-renew on a monthly basis and are cancellable by dealers with 30-days' advance notice. The Company also offers Listing dealers access to the Dealer Dashboard, which includes a performance summary, Dealer Insights tool, user review management platform, Pricing Tool, and Market Analysis tool. The Pricing Tool and Market Analysis tool are available only to paying dealers. Subscription pricing is determined based on a dealer's inventory size, region, and the Company's assessment of the connections and Return on Investment ("ROI") the platform will provide them.

Customers do not have the right to take possession of the Company's software.

In addition to listing inventory in the marketplace and providing access to the Dealer Dashboard, the Company offers Enhanced and Featured Listing dealers other subscription advertising and customer acquisition products, including display advertising that appears in the Company's marketplace and on other sites on the internet. This advertising can be targeted by geography, search history, and a number of other factors, and dealer search engine marketing, which helps dealers more effectively acquire customers through paid search, social media, and retargeted advertising.

Payment is typically due on first day of each calendar month and is recorded as accounts receivable or short-term deferred revenue when payment is received in advance of services being delivered to the customers.

Advertising and Other Revenue

Advertising and other revenue consists primarily of non-dealer display advertising revenue from auto manufacturers and other auto-related brand advertisers sold on a cost per thousand impressions ("CPM") basis. An impression is an advertisement loaded on a web page. In addition to advertising sold on a CPM basis, the Company also has advertising sold on a cost per click basis. Auto manufacturers and other brand advertisers can execute advertising campaigns that are targeted across a wide variety of parameters, including demographic groups, behavioral characteristics, specific auto brands, categories such as Certified Pre-Owned, and segments such as hybrid vehicles. The Company does not provide minimum impression guarantees or other types of minimum guarantees in its contracts with customers. Pricing is primarily based on advertisement size and position on the Company's websites and mobile applications, and fees are billed monthly in arrears. Unbilled accounts receivables relate to services rendered in the current period, but not invoiced until the subsequent period.

The Company sells advertising directly to auto manufacturers and other auto related brand advertisers, as well as indirectly through revenue sharing arrangements with advertising exchange partners. Company-sold advertising is not subject to revenue sharing arrangements. Company-sold advertising revenue is recognized based on the gross amount charged to the advertiser. Partner-sold advertising revenue is recognized based on the net amount of revenue received from the content partners.

Revenue from advertising sold directly by the Company is recorded on a gross basis because the Company is the principal in the arrangement, controls the ad placement and timing of the campaign, and establishes the selling price. The Company enters into contractual arrangements directly with advertisers and is directly responsible for the fulfillment of the contractual terms including any remedy for issues with such fulfillment.

Advertising revenue subject to revenue sharing agreements between the Company and advertising exchange partners is recognized based on the net amount of revenue received from the partner. The advertising partner is responsible for fulfillment, including the acceptability of the services delivered. In partner-sold advertising arrangements, the advertising partner has a direct contractual relationship with the advertiser. There is no contractual relationship between the Company and the advertiser for partner sold transactions. When an advertising exchange partner sells advertisements, the partner is responsible for fulfilling the advertisements, and accordingly, the Company has determined the advertising partner is the principal in the arrangement. Additionally, for auction-based partner agreements, the Company has latitude in establishing the floor price, but the final price is established by the exchange server are market rates.

Customers are billed monthly in arrears and payment terms are generally thirty to sixty days from the date invoiced.

Prior to adoption of ASC 606

The Company recognizes revenue when all of the following conditions are satisfied: (1) there is persuasive evidence of an arrangement; (2) the service has been provided to the customer; (3) the collection of fees is reasonably assured; and (4) the amount of fees to be paid by the customer is fixed or determinable.

The Company recognizes marketplace subscription revenue on a monthly basis as revenue is earned and advertising and other revenue as impressions are delivered. Revenue is presented net of any taxes collected from customers.

The Company assesses arrangements with multiple deliverables under ASU No. 2009-13, Revenue Recognition (Topic 605), *Multiple-Deliverable Revenue Arrangements — a Consensus of the FASB Emerging Issues Task Force*. Pursuant to ASU 2009-13, in order to treat deliverables in a multiple-element arrangement as separate units of accounting, the deliverables must have stand-alone value upon delivery. If the deliverables have stand-alone value upon delivery, the Company accounts for each deliverable separately. The Company has concluded that each element in the arrangement has stand-alone value as the individual services can be sold separately. In addition, there is no right of refund once a service has been delivered. Therefore, the Company has concluded each element of the arrangement is a separate unit of accounting. While these arrangements are considered multiple element-arrangements, the recognition of the units of accounting follow a consistent ratable recognition given the pattern over which services are provided.

The Company establishes sales allowances at the time of revenue recognition based on its history of adjustments and credits provided to its customers. Sales allowances relate primarily to credits issued for service interruption. In assessing the adequacy of the sales allowance, the Company evaluates its history of adjustments and credits made through the date of the issuance of the financial statements. Estimated sales adjustments and credits and ultimate losses may vary from actual results which could be material to the financial statements; however, to date, actual sales allowances have been materially consistent with the Company’s estimates. Sales allowances are recorded as a reduction to revenue in the consolidated statements of operations.

Post adoption of ASC 606

In May 2014, the Financial Accounting Standards Board (FASB) issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which modifies how all entities recognize revenue, and consolidates revenue recognition guidance into one ASC Topic (ASC Topic 606, *Revenue from Contracts with Customers*) (“ASC 606”). Since the Company ceased to be an emerging growth company as of December 31, 2018, the Company adopted the standard during the fourth quarter of 2018 and applied the modified retrospective method of adoption with a cumulative catch-up adjustment to the opening balance of retained earnings at January 1, 2018. Under this method, the Company applied the revised guidance for the year of adoption and applied ASC Topic 605, *Revenue Recognition* (“ASC 605”), in the prior years. As a result, the Company applied ASC 606 only to contracts that were not yet completed as of January 1, 2018. The Company recognized a cumulative catch-up adjustment to the opening balance of retained earnings at the effective date for contracts that still required performance by the Company at January 1, 2018. For contracts that were modified before the effective date, the Company exercised the use of the practical expedient and reflected the aggregate effect of all modifications when identifying performance obligations, determining the transaction price and allocating transaction price, which did not have a material effect on the adjustment to retained earnings.

ASC 606 outlines a comprehensive five-step revenue recognition model based on the principle that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve this core principle, the Company applies the following five steps:

- 1) *Identify the contract with a customer*
- 2) *Identify the performance obligations in the contract*
- 3) *Determine the transaction price*
- 4) *Allocate the transaction price to performance obligations in the contract*
- 5) *Recognize revenue when or as the Company satisfies a performance obligation*

Disaggregation of Revenue

The following table summarizes revenue from contracts with customers by revenue source for the year ended December 31, 2018.

	Year Ended December 31, 2018	
Revenue by Revenue Stream		
Marketplace subscription revenue	\$	405,780
Advertising and other revenue		48,306
Total	\$	454,086

The Company provides disaggregation of revenue based on the marketplace subscription versus advertising and other revenue classification in the table above and based on geographic region (see Note 11) as it believes these categories best depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors.

Marketplace Subscription Revenue

For dealer listings, the Company provides a single similar service each day for a period of time. Each time increment (i.e. day), rather than the underlying activities, is distinct and substantially the same and therefore the performance obligation of the Company is to provide a series of daily activities over the contract term. Similar to the dealer listings, the display advertising is considered a promise to provide a single similar service each day. Each time increment is distinct and substantially the same and therefore the performance obligation of the Company is to provide a series of daily activities over the contract term.

Total consideration for marketplace subscription revenue is stated within the contracts. There are no contractual cash refund rights, but credits may be issued to a customer at the sole discretion of the Company. At an individual contract level, there is also no variable consideration, such as sales allowance, that needs to be included in the transaction price. However, at a portfolio level, the Company recognizes that there are times when there is a customer satisfaction issue or other circumstance that will lead to a credit. Due to the known possibility of future credits, a monthly sales allowance review is performed to defer revenue at a portfolio level for such future adjustments in the period of incurrence. The Company establishes sales allowances at the time of revenue recognition based on its history of adjustments and credits provided to its customers. In assessing the adequacy of the sales allowance, the Company evaluates its history of adjustments and credits made through the date of the issuance of the financial statements. Estimated sales adjustments, credits and losses may vary from actual results which could lead to material adjustments to the financial statements. To date, actual sales allowances have been materially consistent with the Company's estimates. Sales allowances are recorded as a reduction to revenue in the consolidated statements of operations.

Performance obligations are satisfied over time as the customer simultaneously receives and consumes the benefit of the service. Revenue is recognized ratably over the subscription period beginning on the date the Company's online products are made available to the customers. Revenue is presented net of any taxes collected from customers.

Advertising and Other Revenue

For advertising revenue, the performance obligation is to publish the agreed upon campaign on the Company's websites and load the related impressions.

Advertising contracts state the transaction price within the agreement with payment being based on the number of clicks or impressions delivered on the Company's websites. Total consideration is based on output and deemed variable consideration constrained by an agreed upon delivery schedule. Additionally, there are generally no contractual cash refund rights. Certain contracts do contain the right for credits in situations in which impressions are not displayed in compliance with contractual specifications. At an individual contract level, the Company may give a credit for a customer satisfaction issue or other circumstance. Due to the known possibility of future credits, a monthly review is performed to defer revenue at an individual contract level for such future adjustments in the period of incurrence.

As consideration is driven by the number of impressions delivered on the CarGurus websites, the consideration for each period is allocated to the period in which the service was rendered.

Performance obligations for company-sold advertising revenue and partner-sold advertising revenue are satisfied over time as impressions are delivered. Revenue is recognized based on the total number of impressions delivered within the specified period. Revenue from advertising sold directly by the Company is recognized based on the gross amount charged to the advertiser and advertising revenue sold by partners is recognized based on the net amount of revenue received from the content partners. Revenue is presented net of any taxes collected from customers.

For other revenue, performance obligations are satisfied over time as services are rendered and revenue is recognized as it is earned.

Contracts with Multiple Performance Obligations

The Company periodically enters into arrangements that include Dealer Listing and Display within marketplace subscription revenue. These contracts include multiple promises that the Company evaluates to determine if the promises are separate performance obligations. Performance obligations are identified based on services to be transferred to a customer that are distinct within the context of the contractual terms. Once the performance obligations have been identified, the Company determines the transaction price, which includes estimating the amount of variable consideration to be included in the transaction price, if any. If required, the transaction price is allocated to each performance obligation in the contract based on a relative SSP method as the performance obligation is being satisfied. For the Company's arrangements that include Dealer Listing and Display, the performance obligations were satisfied over a consistent period of time and therefore the allocations did not impact the revenue recognized.

Costs to Obtain a Contract

Commissions paid to sales representatives and payroll taxes are considered costs to obtain a contract. Under the new guidance, the costs to obtain a contract require capitalization and amortization of those costs over the period of benefit. Although the new guidance specifies the accounting for an individual contract with a customer, as a practical expedient, the Company has opted to apply the guidance to a portfolio of contracts with similar characteristics. The Company has opted to apply another practical expedient to immediately expense the incremental cost of obtaining a contract when the underlying related asset would have been amortized over one year or less. As such, the Company applied this practical expedient to advertising contracts as the term is one year or less and these contracts do not renew automatically. The practical expedient is not applicable to marketplace subscription contracts as the period of benefit including renewals is anticipated to be greater than one year as commissions paid on contract renewals are not commensurate with the commissions paid on the initial contract. The assets are periodically assessed for impairment.

For marketplace subscription customers, the commissions paid on contracts with new customers, in addition to any commission amount related to incremental sales, are capitalized and amortized over the estimated benefit period of the customer relationship taking into account factors such as peer estimates of technology lives and customer lives as well as the Company's own historical data. Commissions paid that are not directly related to obtaining a new contract are expensed as incurred.

Additionally, the Company allocates employer payroll tax expense to the commission expense in proportion to the overall payroll taxes paid during the respective period. As such, capitalized payroll taxes are amortized in the same manner as the underlying capitalized commissions.

Financial Statement Impact of Adopting ASC 606

The cumulative effect of applying the new guidance to all contracts with customers that were not completed as of January 1, 2018 was recorded as an adjustment to accumulated deficit as of the adoption date. As a result of applying the modified retrospective method to adopt the new revenue guidance, the following adjustments were made on the consolidated balance sheet as of January 1, 2018.

	As Reported	Adjustments		As Adjusted
	December 31, 2017	Marketplace Subscription Revenue	Costs to Obtain a Contract	January 1, 2018
Assets				
Current assets:				
Cash and cash equivalents	\$ 87,709			\$ 87,709
Investments	50,000			50,000
Accounts receivable, net	12,577	813		13,390
Prepaid expenses and prepaid income taxes	5,313			5,313
Deferred contract costs	—		1,424	1,424
Other current assets	1,605			1,605
Restricted cash	—			—
Total current assets	157,204	813	1,424	159,441
Property and equipment, net	16,563			16,563
Restricted cash	1,843			1,843
Deferred tax assets	825	(190)	(635)	—
Deferred contract costs, net of current portion	—		1,783	1,783
Other long-term assets	159			159
Total assets	<u>\$ 176,594</u>	<u>\$ 623</u>	<u>\$ 2,572</u>	<u>\$ 179,789</u>
Liabilities and stockholders' equity				
Current liabilities:				
Accounts payable	\$ 23,908			\$ 23,908
Accrued expenses, accrued income taxes and other current liabilities	13,588			13,588
Deferred revenue	4,305			4,305
Deferred tax liabilities	—		153	153
Deferred rent	1,165			1,165
Total current liabilities	42,966	—	153	43,119
Deferred rent, net of current portion	5,648			5,648
Other non-current liabilities	955			955
Total liabilities	49,569	—	153	49,722
Commitments and contingencies				
Stockholders' equity:				
Preferred stock	—			—
Class A common stock	78			78
Class B common stock	28			28
Additional paid-in capital	185,190			185,190
Accumulated deficit	(58,499)	623	2,419	(55,457)
Accumulated other comprehensive income	228			228
Total stockholders' equity	127,025	623	2,419	130,067
Total liabilities and stockholders' equity	<u>\$ 176,594</u>	<u>\$ 623</u>	<u>\$ 2,572</u>	<u>\$ 179,789</u>

Marketplace Subscription Revenue

Under ASC 606, the Company's accounting for contracts containing discounts resulted in accelerated revenue recognition. The cumulative impact of this change to the Company's accounts receivable on January 1, 2018 was \$813.

Costs to Obtain a Contract

As described above, under the new guidance, the capitalized commission expense is amortized over the estimated customer relationship period. The net impact of this change resulted in a \$3,207 reduction to accumulated deficit for contracts that still require performance by the Company at the date of adoption.

Income Taxes

The adoption of ASC 606 primarily resulted in an acceleration of revenue and the reduction of expense, which in turn generated additional deferred tax liabilities that ultimately reduced the Company's net deferred tax asset position. The cumulative impact resulted in a reduction to deferred tax assets of \$978 which put the Company in a net deferred tax liability position on January 1, 2018.

Impact of New Revenue Guidance on Financial Statement Line Items

The following tables compare the reported consolidated balance sheet, statement of operations and cash flows, as of and for the year ended December 31, 2018, to the pro-forma amounts had the previous guidance been in effect.

Balance Sheet	As of December 31, 2018			
	As Reported	Marketplace Subscription Revenue	Costs to Obtain a Contract	Pro forma as if the previous accounting guidance was in effect
Assets				
Current assets:				
Cash and cash equivalents	\$ 34,887			\$ 34,887
Investments	122,800			122,800
Accounts receivable, net	13,614	939		12,675
Prepaid income taxes and prepaid income taxes	10,144			10,144
Deferred contract costs	5,253		5,253	—
Other current assets	7,410			7,410
Restricted cash	750			750
Total current assets	194,858	939	5,253	188,666
Property and equipment, net	24,269			24,269
Restricted cash	1,921			1,921
Deferred tax assets	38,886	(227)	(3,187)	42,300
Deferred contract costs, net of current portion	7,252		7,252	—
Other long-term assets	1,104			1,104
Total assets	\$ 268,290	\$ 712	\$ 9,318	\$ 258,260
Liabilities and stockholders' equity				
Current liabilities:				
Accounts payable	\$ 34,345			\$ 34,345
Accrued expenses, accrued income taxes and other current liabilities	18,654			18,654
Deferred revenue	8,811			8,811
Deferred rent	1,693			1,693
Total current liabilities	63,503	—	—	63,503
Deferred rent, net of current portion	9,395			9,395
Other non-current liabilities	1,281			1,281
Total liabilities	74,179	—	—	74,179
Commitments and contingencies				
Stockholders' equity:				
Preferred stock	—			—
Class A common stock	90			90
Class B common stock	21			21
Additional paid-in capital	184,216			184,216
Retained earnings (accumulated deficit)	9,713	712	9,318	(317)
Accumulated other comprehensive income	71			71
Total stockholders' equity	194,111	712	9,318	184,081
Total liabilities and stockholders' equity	\$ 268,290	\$ 712	\$ 9,318	\$ 258,260

Total reported assets were \$10,030 greater than the pro-forma balance sheet, which assumes the previous guidance remained in effect as of December 31, 2018. This was largely due to the impact of \$12,505 related to costs to obtain a contract.

There were no changes to liabilities as of December 31, 2018 as a result of the adoption of ASC 606.

The following summarizes the significant changes on the Company's consolidated statement of operations for the year ended December 31, 2018 as a result of the adoption of ASC 606 on January 1, 2018 compared to the pro-forma amounts had the Company continued to recognize revenue under ASC 605.

Statement of Operations	Year Ended December 31, 2018			
	As Reported	Marketplace Subscription Revenue	Costs to Obtain a Contract	Pro forma as if the previous accounting guidance was in effect
Revenue	\$ 454,086	\$ 126		\$ 453,960
Cost of revenue	24,811			24,811
Gross profit	429,275	126	—	429,149
Operating expenses:				
Sales and marketing	315,939		(9,298)	325,237
Product, technology, and development	47,866			47,866
General and administrative	39,475			39,475
Depreciation and amortization	2,804			2,804
Total operating expenses	406,084	—	(9,298)	415,382
Income from operations	23,191	126	9,298	13,767
Other income, net:				
Interest income	2,283			2,283
Other income (expense)	10			10
Total other income, net	2,293	—	—	2,293
Income before income taxes	25,484	126	9,298	16,060
(Benefit from) provision for income taxes	(39,686)	37	2,399	(42,122)
Net income	\$ 65,170	\$ 89	\$ 6,899	\$ 58,182
Basic	\$ 0.60	\$ —	\$ 0.07	\$ 0.53
Diluted	\$ 0.57	\$ —	\$ 0.06	\$ 0.51

The adoption of ASC 606 resulted in an increase to revenue of \$126 during the year ended December 31, 2018 due to accelerated revenue recognition for contracts containing discounts. The adoption of ASC 606 also resulted in a \$9,298 reduction in sales and marketing expense during the year ended December 31, 2018 as a result of capitalizing a portion of commission expense, which was previously expensed under the previous guidance. During the year ended December 31, 2018, the cumulative impact of these changes was a \$9,424 increase in income from operations which resulted in a \$2,436 reduction to the benefit from income taxes. Additionally, the adoption of ASC 606 resulted in the Company's basic and diluted EPS for the year ended December 31, 2018 increasing \$0.07 and \$0.06, respectively.

The following summarizes the significant changes on the Company's consolidated statement of cash flows for the year ended December 31, 2018 as a result of the adoption of ASC 606 on January 1, 2018 compared to the pro-forma amounts had the Company continued to recognize revenue under ASC 605.

Statement of Cash Flows	Year Ended December 31, 2018			
	As Reported	Marketplace Subscription Revenue	Costs to Obtain a Contract	Pro forma as if the previous accounting guidance was in effect
Operating Activities				
Net income	\$ 65,170	\$ 89	\$ 6,899	\$ 58,182
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation and amortization	5,029			5,029
Unrealized currency (gain) loss on foreign denominated transactions	(190)			(190)
Deferred taxes	(39,040)	37	2,399	(41,476)
Provision for doubtful accounts	1,680			1,680
Stock-based compensation expense	20,794			20,794
Amortization of deferred contract costs	3,689		3,689	—
Changes in operating assets and liabilities:				
Accounts receivable, net	(1,911)	(126)		(1,785)
Prepaid expenses, prepaid income taxes, and other assets	(11,753)			(11,753)
Deferred contracts costs	(12,987)		(12,987)	—
Accounts payable	9,345			9,345
Accrued expenses, accrued income taxes and other current liabilities	2,695			2,695
Deferred revenue	4,508			4,508
Deferred rent	4,289			4,289
Other non-current liabilities	405			405
Net cash provided by operating activities	<u>51,723</u>	<u>—</u>	<u>—</u>	<u>51,723</u>

The adoption of ASC 606 had no impact on the Company's cash flows from operations. The aforementioned impacts resulted in offsetting shifts in cash flows between net income and various working capital balances.

The following summarizes the opening and closing balances of receivables and contract assets from contracts with customers.

	Accounts Receivable, net	Contract Assets (current)	Contract Assets (non-current)
Balance at January 1, 2018	\$ 13,390	\$ 1,424	\$ 1,783
Balance at December 31, 2018	13,614	5,253	7,252

The assets recognized for costs to obtain a contract was \$3,207 and \$12,505 as of January 1, 2018 and December 31, 2018, respectively. Amortization expense recognized during the year ended December 31, 2018 related to costs to obtain a contract were \$3,689.

Transaction Price Allocated to Future Performance Obligations

ASC 606 requires that the Company disclose the aggregate amount of transaction price that is allocated to performance obligations that have not yet been satisfied as of December 31, 2018. However, the Company applied the practical expedient to not disclose the amount of transaction price allocated to unsatisfied performance obligations when the performance obligation is part of a contract that has an original expected duration of one year or less.

The Company does not have future obligations associated with marketplace revenue subscriptions or advertising and other services that extend beyond one year. For performance obligations not satisfied as of December 31, 2018, the nature of the performance obligations, the variable consideration and any consideration from contracts with customers not included in the transaction price is consistent with performance obligations satisfied as of December 31, 2018. The remaining duration is less than one year.

Deferred Revenue

Deferred revenue primarily consists of payments received in advance of revenue recognition from the Company's marketplace revenue and is recognized as the revenue recognition criteria are met. The Company generally invoices its customers monthly. Accordingly, the deferred revenue balances do not represent the total contract value of annual or multiyear subscription agreements. Deferred revenue that is expected to be recognized during the succeeding 12-month period is recorded as current deferred revenue and the remaining portion is recorded as noncurrent in the consolidated balance sheets. All deferred revenue was recorded as current for all periods presented.

Cost of Revenue

Cost of revenue primarily consists of costs related to supporting and hosting the Company's websites and product offerings. These costs include salaries, benefits, incentive compensation and stock-based compensation expense related to the customer support team, and third-party service provider costs such as data center and networking expenses, allocated overhead, depreciation and amortization expense associated with the Company's property and equipment, and amortization of capitalized website development costs.

Concentration of Credit Risk

The Company has no significant off-balance sheet risk, such as foreign exchange contracts, option contracts, or other foreign hedging arrangements. Financial instruments that potentially expose the Company to concentrations of credit risk consist primarily of cash, cash equivalents, investments, and trade accounts receivable. The Company maintains its cash, cash equivalents, and investments principally with accredited financial institutions of high credit standing. Although the Company deposits its cash and investments with multiple financial institutions, its deposits, at times, may exceed federally insured limits.

Credit risk with respect to accounts receivable is dispersed due to the large number of customers. The Company routinely assesses the creditworthiness of its customers. The Company generally has not experienced any material losses related to receivables from individual customers, or groups of customers. The Company does not require collateral. Due to these factors, no additional credit risk beyond amounts provided for collection losses is believed by management to be probable in the Company's accounts receivable.

For the years ended December 31, 2018, 2017 and 2016, no individual customer accounted for more than 10% of total revenue.

As of December 31, 2018, two customers accounted for 21% and 14% of net accounts receivable, respectively. As of December 31, 2017, two customers accounted for 29% and 17% of net accounts receivable, respectively. No other individual customer accounted for more than 10% of net accounts receivable at December 31, 2018 or 2017.

Included in net accounts receivable at December 31, 2018 and 2017, is \$5,815 and \$1,845 of unbilled accounts receivables related to advertising customers billed within a quarter subsequent to services rendered.

Cash, Cash Equivalents, and Investments

The Company considers all highly liquid investments with an original maturity of three months or less at the date of purchase to be cash equivalents. Investments not classified as cash equivalents with maturities less than one year from the balance sheet date are classified as short-term investments, while investments with maturities in excess of one year from the balance sheet date are classified as long-term investments. Management determines the appropriate classification of investments at the time of purchase, and re-evaluates such determination at each balance sheet date.

Cash and cash equivalents primarily consist of cash on deposit with banks, and amounts held in interest-bearing money market accounts. Cash equivalents are carried at cost, which approximates their fair market value.

The Company's investment policy, which was approved by the Audit Committee of the Company's board of directors (the "Board"), permits investments in fixed income securities, including U.S. government and agency securities, non-U.S. government securities, money market instruments, commercial paper, certificates of deposit, corporate bonds, and asset-backed securities.

As of December 31, 2018 and 2017, investments consisted of U.S. certificates of deposit ("CDs") with remaining maturities of less than twelve months. The Company classifies CDs with readily determinable market values as held-to-maturity, because it is the Company's intention to hold such investments until they mature. As such, investments were recorded at amortized cost at December 31, 2018 and 2017. The Company adjusts the cost of investments for amortization of premiums and accretion of discounts to maturity, if any. For the years ended December 31, 2018, 2017 and 2016, the Company did not have any premiums or discounts.

Realized gains and losses from sales of the Company's investments are included in other income (expense). There were no realized gains or losses on investments for the years ended December 31, 2018, 2017 or 2016.

The Company reviews investments for other-than-temporary impairment whenever the fair value of an investment is less than the amortized cost and evidence indicates that an investment's carrying amount is not recoverable within a reasonable period of time. Other-than-temporary impairments of investments are recognized in the consolidated statements of operations if the Company has experienced a credit loss, has the intent to sell the investment, or if it is more likely than not that the Company will be required to sell the investment before recovery of the amortized cost basis. Evidence considered in this assessment includes reasons for the impairment, compliance with the Company's investment policy, the severity and duration of the impairment, and changes in value subsequent to the end of the period. As of December 31, 2018 and 2017, the Company determined that no other-than-temporary impairments were required to be recognized in the consolidated statements of operations.

Restricted Cash

At December 31, 2018 and 2017, restricted cash was \$2,671 and \$1,843, respectively, and primarily related to cash held at a financial institution in an interest-bearing cash account as collateral for three letters of credit in 2018 and two letters of credit in 2017 related to the contractual provisions for the Company's building lease security deposits.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are recorded based on the amount due from the customer and do not generally bear interest. The Company offsets gross trade accounts receivable with an allowance for doubtful accounts. The allowance for doubtful accounts is the Company's best estimate of the amount of probable credit losses in the Company's existing accounts receivable and is based upon historical loss patterns, the number of days that billings are past due, and an evaluation of the potential risk of loss associated with specific accounts. Account balances are charged against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. The Company does not have any off-balance sheet credit exposure related to its customers. Provisions for allowances for doubtful accounts are recorded in general and administrative expense.

Unbilled accounts receivables are recorded for services rendered in the current period, but not invoiced until the subsequent period.

The Company considers current economic trends when evaluating the adequacy of the allowance for doubtful accounts. If circumstances relating to specific customers change, or unanticipated changes occur in the general business environment, particularly as it affects auto dealers, the Company's estimates of the recoverability of receivables could be further adjusted.

Below is a summary of the changes in the Company's allowance for doubtful accounts for the years ended December 31, 2018, 2017, and 2016:

	Balance at Beginning of Period	Provision	Write-offs, net of recoveries	Balance at End of Period
Year ended December 31, 2018	\$ 494	\$ 1,680	\$ (1,695)	\$ 479
Year ended December 31, 2017	164	1,117	(787)	494
Year ended December 31, 2016	75	508	(419)	164

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization using the straight-line method over the estimated useful lives of the assets. Leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the related asset. The estimated useful lives of the Company's property and equipment are as follows:

	Estimated Useful Life (In Years)
Computer equipment	3
Capitalized software	3
Website development costs	3
Furniture and fixtures	5
Leasehold improvements	Lesser of asset life or lease term

Expenditures for maintenance and repairs are charged to expense as incurred, whereas major betterments are capitalized as additions to property and equipment. The Company reviews its property and equipment whenever events or changes in circumstances indicate that the carrying value of certain assets might not be recoverable. In these instances, the Company recognizes an impairment loss when it is probable that the estimated cash flows are less than the carrying value of the asset.

Foreign Currency Translation

The reporting currency of the Company is the U.S. dollar. The functional currency of the Company's foreign subsidiaries is the local currency of each subsidiary. All assets and liabilities in the balance sheets of entities whose functional currency is a currency other than the U.S. dollar are translated into U.S. dollar equivalents at exchange rates as follows: (1) asset and liability accounts at period-end rates; (2) income statement accounts at weighted-average exchange rates for the period; and (3) stockholders' equity accounts at historical exchange rates. The resulting translation adjustments are excluded from net income and reflected as a separate component of stockholders' equity (deficit). Foreign currency transaction gains and losses are included in net income for the period. The Company may periodically have certain intercompany foreign currency transactions that are deemed to be of a long-term investment nature; exchange adjustments related to those transactions are made directly to a separate component of stockholders' equity (deficit).

Capitalized Website and Software Development Costs

The Company capitalizes certain costs associated with the development of its websites and internal-use software products after the preliminary project stage is complete, and until the software is ready for its intended use. Research and development costs incurred during the preliminary project stage or costs incurred for data conversion activities, training, maintenance, and general and administrative or overhead costs are expensed as incurred. Capitalization begins when the preliminary project stage is complete; management authorizes and commits to the funding of the software project with appropriate authority; it is probable the project will be completed; the software will be used to perform the functions intended; and certain functional and quality standards have been met. Qualified costs incurred during the operating stage of the Company's software applications relating to upgrades and enhancements are capitalized to the extent it is probable that they will result in added functionality, while costs that cannot be separated between maintenance of, and minor upgrades and enhancements to, internal-use software are expensed as incurred.

Capitalized website development costs and software development costs are amortized on a straight-line basis over their estimated useful life of three years beginning with the time when it is ready for intended use. Management evaluates the useful lives of these assets on an annual basis and tests for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets.

During the years ended December 31, 2018 and 2017, the Company capitalized \$2,012 and \$2,215 of website and software development costs, respectively. The Company recorded amortization expense associated with its capitalized website and software development costs of \$1,508, \$812, and \$343 for the years ended December 31, 2018, 2017, and 2016, respectively.

Impairment of Long-Lived Assets

The Company evaluates the recoverability of long-lived assets, such as property and equipment, for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. During this review, the Company re-evaluates the significant assumptions used in determining the original cost and estimated lives of long-lived assets. Although the assumptions may vary from asset to asset, they generally include operating results, changes in the use of the asset, cash flows, and other indicators of value. Management then determines whether the remaining useful life continues to be appropriate, or whether there has been an impairment of long-lived assets based primarily upon whether expected future undiscounted cash flows are sufficient to support the assets' recovery. Recoverability of these assets is measured by comparison of the carrying amount of the asset to the future undiscounted cash flows the asset is expected to generate. If the asset is considered to be impaired, the amount of any impairment is measured as the difference between the carrying value and the fair value of the impaired asset.

For the years ended December 31, 2018, 2017, and 2016, the Company did not identify any impairment of its long-lived assets.

Income Taxes

The Company accounts for income taxes in accordance with the asset and liability method. Under this method, deferred tax assets and liabilities are recognized based on temporary differences between the financial reporting and income tax bases of assets and liabilities using statutory rates. In addition, this method requires a valuation allowance against net deferred tax assets if, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company accounts for uncertain tax positions recognized in the consolidated financial statements by prescribing a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The Company has no recorded liabilities for uncertain tax positions as of December 31, 2018 and 2017.

Disclosure of Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments, which include cash and cash equivalents, investments, accounts receivable, accounts payable, and accrued expenses, approximated their fair values at December 31, 2018 and 2017 due to the short-term nature of these instruments.

The Company has evaluated the estimated fair value of financial instruments using available market information. The use of different market assumptions, estimation methodologies, or both, could have a significant effect on the estimated fair value amounts. See Note 3 for further discussion.

Stock-Based Compensation

For stock-based awards issued under the Company's stock-based compensation plans, which are more fully described in Note 8, the fair value of each award is estimated on the date of grant, and, up through the year ended December 31, 2016, an estimated forfeiture rate was used when calculating stock-based compensation expense for the period. The Company recognizes compensation expense for service-based awards on a straight-line basis over the requisite service period for each separate vesting portion of the award, with the amount of compensation expense recognized at any date at least equaling the portion of the grant-date fair value of the award that is vested at that date.

Certain awards granted by the Company prior to the IPO were subject to service-based vesting conditions and a performance-based vesting condition achieved upon a liquidity event, defined as either a change of control or an initial public offering. The Securities and Exchange Commission's declaration of effectiveness of the Company's registration statement on Form S-1 on October 11, 2017 satisfied the liquidity event performance condition. Upon the achievement of the liquidity event, the Company recorded previously unrecognized cumulative stock-based compensation expense of \$2.5 million related to these awards. Although the performance based vesting condition was satisfied, under the terms of the awards, the settlement of such vested RSUs and the issuance of common stock with respect to such vested RSUs, occurred on April 10, 2018, one hundred eighty-one days after the satisfaction of the performance condition.

Given the absence of an active market for the Company's common stock prior to the IPO, the Board, the members of which the Company believes have extensive business, finance, and venture capital experience, was required to estimate the fair value of the Company's common stock at the time of each grant of a stock-based award. The Company and the Board utilized various valuation methodologies in accordance with the framework of the American Institute of Certified Public Accountants' Technical Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, to estimate the fair value of its common stock. Each valuation methodology includes estimates and assumptions that require the Company's judgment. These estimates and assumptions include a number of objective and subjective factors in determining the value of the Company's common stock at each grant date, including the following factors: (1) prices paid for the Company's convertible Preferred Stock, which the Company had sold to outside investors in arm's-length transactions, and the rights, preferences, and privileges of the Company's convertible Preferred Stock and common stock; (2) valuations performed by an independent valuation specialist; (3) the Company's stage of development and revenue growth; (4) the fact that the grants of stock-based awards involved illiquid securities in a private company; and (5) the likelihood of achieving a liquidity event for the common stock underlying the stock-based awards, such as an IPO or sale of the Company, given prevailing market conditions.

The Company believes this methodology was reasonable based upon the Company's internal peer company analyses, and further supported by arm's-length transactions involving the Company's convertible Preferred Stock. As the Company's common stock was not actively traded, the determination of fair value involved assumptions, judgments, and estimates. If different assumptions had been made, stock-based compensation expense, consolidated net income, and consolidated net income (loss) per share could have been significantly different.

For RSUs granted subsequent to the IPO, the fair value is determined based on the closing price of the Company's Class A common stock as reported on the Nasdaq Global Select Market on the date of grant.

For RSUs issued under the Company's stock-based compensation plans prior to the IPO, the fair value of each grant was calculated based on the estimated fair value of the Company's common stock on the date of grant. The Company estimated the fair value of most stock option awards on the date of grant using the Black-Scholes option-pricing model. Certain stock option awards that have an exercise price that was materially above the current estimated fair market value of the Company's stock are considered to be "deeply out of the money," and are valued at the date of grant using a binomial lattice option-pricing model.

The fair value of each option grant issued under the Company's stock-based compensation plans that was not considered "deeply out of the money," was estimated using the Black-Scholes option-pricing model. As there was no public market for its common stock prior to the IPO, the Company determined the volatility for options granted based on an analysis of reported data for a peer group of companies that issued options with substantially similar terms. The expected volatility of granted options has been determined using a weighted-average of the historical volatility measures of this peer group of companies. The expected life of options has been determined utilizing the "simplified method." The simplified method is based on the average of the vesting tranches and the contractual life of each grant. The risk-free interest rate is based on a treasury instrument whose term is consistent with the expected life of the stock options. The Company has not paid, and does not anticipate paying, cash dividends on its common stock; therefore, the expected dividend yield was assumed to be zero. In addition, the Company applied an estimated forfeiture rate of 5% in determining the expense recorded in the accompanying consolidated statements of operations for the year ended December 31, 2016.

The Company issues shares for stock option exercises and RSUs out of its shares available for issuance.

In March 2016, the FASB issued ASU 2016-09, *Compensation — Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting* (ASU 2016-09). The guidance identifies areas for simplification involving several aspects of accounting for share-based payments, including income tax consequences, classification of awards as either equity or liabilities, an option to make a policy election to recognize gross stock-based compensation expense with actual forfeitures recognized as they occur, as well as certain classification changes on the statement of cash flows. The Company adopted ASU 2016-09 on January 1, 2017 and elected to account for forfeitures when they occur, on a modified retrospective basis. The cumulative effect adjustment related to the Company's accounting policy change for forfeitures was not material. In accordance with the adoption of this guidance, the tax effect of differences between tax deductions related to stock compensation and the corresponding financial statement expense compensation will no longer be recorded to additional paid-in capital in the balance sheet. Instead, such amounts will be recorded to tax expense. During 2018 and 2017, the Company recorded tax benefits of \$40,765 and \$681, respectively, related to differences between tax deductions related to stock compensation and the corresponding financial statement expense compensation. The Company also elected to prospectively apply the change in presentation of excess tax benefits, wherein excess tax benefits recognized on stock-based compensation expense is now classified as an operating activity in the consolidated statements of cash flows. The Company did not adjust the classifications of excess tax benefits in its consolidated statements of cash flows for the years ended December 31, 2016. The adoption did not have any other material impact on the Company's consolidated financial statements.

No options were granted during the years ended December 31, 2018 and 2017. The weighted-average fair value of options granted during the year ended December 31, 2016 was \$0.90. The weighted-average assumptions utilized to determine the fair value of options granted are presented in the following table:

	2016
Expected dividend yield	—
Expected volatility	49%
Risk-free interest rate	1.57%
Expected term (in years)	6.07

See Note 8 for a summary of the stock option and RSU activity for the year ended December 31, 2018.

Advertising Costs

Advertising costs are expensed as incurred. Advertising expense, which is included within sales and marketing expense in the consolidated statements of operations, was \$238,640, \$173,186, and \$112,167 for the years ended December 31, 2018, 2017, and 2016, respectively.

Leases

The Company categorizes leases at their inception as either operating or capital leases. On certain lease arrangements, the Company may receive rent holidays or other incentives. The Company recognizes lease costs on a straight-line basis once control of the space is achieved, without regard to deferred payment terms, such as rent holidays, that defer the commencement date of required payments or escalating payment amounts. The difference between required lease payments and rent expense has been recorded as deferred rent. Additionally, incentives received are treated as a reduction of costs over the term of the agreement, as they are considered an inseparable part of the lease agreement.

Comprehensive Income

Comprehensive income is defined as the change in stockholders' equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Comprehensive income consists of net income and other comprehensive income, which includes certain changes in equity that are excluded from net income. Specifically, cumulative foreign currency translation adjustments are included in accumulated other comprehensive income. As of December 31, 2018, 2017, and 2016, accumulated other comprehensive income is presented separately on the consolidated balance sheets and consists entirely of cumulative foreign currency translation adjustments.

Contingent Liabilities

The Company has certain contingent liabilities that arise in the ordinary course of business activities. The Company accrues for loss contingencies when losses become probable and are reasonably estimable. If the reasonable estimate of the loss is a range and no amount within the range is a better estimate, the minimum amount of the range is recorded as a liability. The Company does not accrue for contingent losses that, in its judgment, are considered to be reasonably possible, but not probable; however, it discloses the range of such reasonably possible losses.

Recent Accounting Pronouncements Not Yet Adopted

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and adopted by the Company on or prior to the specified effective date. Unless otherwise discussed, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on its financial position or results of operations upon adoption.

Leases

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)* (“ASU 2016-02”). ASU 2016-02 requires a lessee to recognize most leases on the balance sheet but recognize expenses on the income statement in a manner similar to current practice. The update states that a lessee will recognize a lease liability for the obligation to make lease payments and a right-to-use asset for the right to use the underlying assets for the lease term. Leases will continue to be classified as either financing or operating, with classification affecting the recognition, measurement, and presentation of expenses and cash flows arising from a lease. For certain public entities, including the Company, the new standard is effective for interim and annual periods beginning on or after January 1, 2019, with early adoption permitted. The Company will adopt this standard on January 1, 2019.

In July 2018, the FASB issued ASU No. 2018-11, *Leases (Topic 842): Targeted Improvements* (“ASU 2018-11”). ASU 2018-11 provides entities with an additional (and optional) transition method to adopt the new leases standard. Under this new transition method, an entity initially applies the new leases standard at the adoption date and recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption.

The Company plans to adopt ASU 2016-02 using the transition method allowed under ASU 2018-11. Upon adoption, the Company expects to elect the transition relief package, permitted within the standard, pursuant to which the Company will not reassess the classification of existing leases, whether any expired or existing contracts contain a lease, and whether existing leases have any initial direct costs. While the Company is still evaluating the impact that ASU 2016-02 may have on its consolidated financial statements, it anticipates that such guidance will materially impact its balance sheet given the Company’s leasing commitments as of December 31, 2018, as disclosed in Note 6.

Other Recent Accounting Pronouncements

In August 2018, the FASB issued ASU 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40) Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*. This update aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. This new standard requires customers to expense the capitalized implementation costs over the term of the hosting arrangement. Amounts expensed would be presented through operating expense, rather than depreciation or amortization. Accounting for the service component of a hosting arrangement remains unchanged. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted and an entity can elect to apply the new guidance on a prospective or retrospective basis. The Company is currently assessing the impact that adopting this guidance will have on its consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-07, *Compensation—Stock Compensation (Topic 718)* (“ASU 2018-07”). ASU 2018-07 expands the scope of Topic 718, *Compensation—Stock Compensation*, to include share-based payment transactions for acquiring goods and services from non-employees. The amendments in this update state that an entity should apply the requirements of Topic 718 to non-employee awards except for specific guidance on inputs to an option pricing model and the attribution of cost (that is, the period of time over which share-based payment awards vest and the pattern of cost recognition over that period). The amendments specify that Topic 718 applies to all share-based payment transactions in which a grantor acquires goods or services to be used or consumed in a grantor’s own operations by issuing share-based payment awards. The amendments also clarify that Topic 718 does not apply to share-based payments used to effectively provide (1) financing to the issuer or (2) awards granted in conjunction with selling goods or services to customers as part of a contract accounted for under Topic 606, Revenue from Contracts with Customers. The amendments in this update are effective for public business entities for fiscal years beginning after December 15, 2018, including interim periods within that fiscal year. For all other entities, the amendments are effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. Early adoption is permitted, but no earlier than an entity’s adoption date of Topic 606. The Company has assessed the impact of this guidance on its consolidated financial statements and does not deem it to be material. The Company plans to adopt the guidance on January 1, 2019.

In January 2017, the FASB issued ASU 2017-04, *Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*. The new guidance simplifies the accounting for goodwill impairment by eliminating Step 2 of the goodwill impairment test. Under current guidance, Step 2 of the goodwill impairment test requires entities to calculate the implied fair value of goodwill in the same manner as the amount of goodwill recognized in a business combination by assigning the fair value of a reporting unit to all of the assets and liabilities of the reporting unit. The carrying value in excess of the implied fair value is recognized as goodwill impairment. Under the new standard, goodwill impairment is recognized based on Step 1 of the current guidance, which calculates the carrying value in excess of the reporting unit’s fair value. The new standard is effective beginning in January 2020, with early adoption permitted. The Company will evaluate this guidance in connection with the purchase price allocation of the PistonHeads acquisition described in Note 14.

3. Fair Value of Financial Instruments Including Cash, Cash Equivalents and Investments

ASC 820, *Fair Value Measurements and Disclosures*, establishes a three-level valuation hierarchy for instruments measured at fair value that distinguishes between assumptions based on market data (observable inputs) and the Company’s own assumptions (unobservable inputs). Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company’s assumptions about the inputs that market participants would use in pricing the asset or liability, and are developed based on the best information available in the circumstances.

ASC 820 identifies fair value as the exchange price, or exit price, representing the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants based on the highest and best use of the asset or liability. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. The Company uses valuation techniques to measure fair value that maximize the use of observable inputs and minimize the use of unobservable inputs. These inputs are prioritized as follows:

Level 1 — Quoted unadjusted prices for identical instruments in active markets.

Level 2 — Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-derived valuations in which all observable inputs and significant value drivers are observable in active markets.

Level 3 — Model-derived valuations in which one or more significant inputs or significant value drivers are unobservable, including assumptions developed by the Company.

The valuation techniques that may be used to measure fair value are as follows:

Market Approach — Uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.

Income Approach — Uses valuation techniques to convert future amounts to a single present amount based on current market expectations about those future amounts, including present value techniques, option pricing models, and excess earnings method.

Cost Approach — Based on the amount that currently would be required to replace the service capacity of an asset (replacement cost).

The following tables present, for each of the fair value levels, the Company's assets that are measured at fair value on a recurring basis at December 31, 2018 and 2017:

	December 31, 2018			
	Quoted Prices in Active Markets for Identical Assets (Level 1 Inputs)	Significant Other Observable Inputs (Level 2 Inputs)	Significant Unobservable Inputs (Level 3 Inputs)	Total
Assets:				
Cash equivalents:				
Money market funds	\$ 24	\$ —	\$ —	\$ 24
Investments:				
Certificates of deposit	—	122,800	—	122,800
Total	\$ 24	\$ 122,800	\$ —	\$ 122,824

	December 31, 2017			
	Quoted Prices in Active Markets for Identical Assets (Level 1 Inputs)	Significant Other Observable Inputs (Level 2 Inputs)	Significant Unobservable Inputs (Level 3 Inputs)	Total
Assets:				
Cash equivalents:				
Money market funds	\$ 60,709	\$ —	\$ —	\$ 60,709
Investments:				
Certificates of deposit	—	50,000	—	50,000
Total	\$ 60,709	\$ 50,000	\$ —	\$ 110,709

The Company measures eligible assets and liabilities at fair value with changes in value recognized in earnings. There were no liabilities that were measured at fair value for the years ended December 31, 2018 and 2017. Fair value treatment may be elected either upon initial recognition of an eligible asset or liability or, for an existing asset or liability, if an event triggers a new basis of accounting. The Company did not elect to remeasure any of its existing financial assets or liabilities and did not elect the fair value option for any financial assets and liabilities transacted in the years ended December 31, 2018 or 2017.

The following is a summary of cash, cash equivalents, and investments as of December 31, 2018 and 2017.

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
December 31, 2018:				
Cash and cash equivalents due in 90 days or less	\$ 34,887	\$ —	\$ —	\$ 34,887
Investments:				
Certificates of deposit due in one year or less	122,800	—	—	122,800
Total cash, cash equivalents, and investments	\$ 157,687	\$ —	\$ —	\$ 157,687
December 31, 2017:				
Cash and cash equivalents due in 90 days or less	\$ 87,709	\$ —	\$ —	\$ 87,709
Investments:				
Certificates of deposit due in one year or less	50,000	—	—	50,000
Total cash, cash equivalents, and investments	\$ 137,709	\$ —	\$ —	\$ 137,709

4. Property and Equipment, Net

Property and equipment consists of the following:

	At December 31,	
	2018	2017
Computer equipment	\$ 4,208	\$ 3,532
Capitalized software	252	174
Website development costs	6,907	4,895
Furniture and fixtures	4,584	4,421
Leasehold improvements	10,821	10,797
Construction in progress	8,971	46
	<u>35,743</u>	<u>23,865</u>
Less accumulated depreciation	(11,474)	(7,302)
Property and equipment, net	<u>\$ 24,269</u>	<u>\$ 16,563</u>

Depreciation and amortization expense, which includes amortization expense associated with capitalized website and software development costs, was \$5,029, \$3,795, and \$2,072 for the years ended December 31, 2018, 2017, and 2016, respectively. The increase of \$8,925 in construction in progress at December 31, 2018 is primarily due to costs incurred to build out the Company's new leased facility which was not occupied until subsequent to December 31, 2018.

5. Accrued expenses, accrued income taxes and other current liabilities

Accrued expenses, accrued income taxes and other current liabilities consist of the following:

	At December 31,	
	2018	2017
Accrued bonuses	\$ 8,266	\$ 7,807
Other accrued expenses, accrued income taxes and other current liabilities	10,388	5,781
	<u>\$ 18,654</u>	<u>\$ 13,588</u>

6. Commitments and Contingencies

Operating Leases

The Company leases its facilities under non-cancelable operating leases with various expiration dates through October 2033. Rent expense for non-cancelable operating leases with free rental periods or scheduled rent increases is recognized on a straight-line basis over the terms of the leases. The difference between required lease payments and rent expense has been recorded as deferred rent.

On June 19, 2018, the Company entered into an operating lease in Cambridge, Massachusetts at 121 First St. for the lease of 48,393 square feet of office space with a non-cancellable lease term through 2033 with an option to extend the lease term for two additional periods of five years each.

On March 11, 2016, the Company entered into an operating lease in Cambridge, Massachusetts at 55 Cambridge Parkway for the lease of 51,923 square feet of office space with a non-cancellable lease term through 2024 with an option to extend the lease term for one additional period of five years.

On October 8, 2014, the Company entered into an operating lease in Cambridge, Massachusetts at 2 Canal Park for the lease of 48,059 square feet of office space with a non-cancellable lease term through 2022 with an option to extend the lease term for one additional period of five years.

Each of the three leases described above provides for leasehold improvement incentives and annual rent increases through the term of the lease.

As of December 31, 2018, the Company had deferred rent and rent incentives of \$11,088, of which \$1,693 and \$9,395, respectively, are classified as a short-term liability and a long-term liability in the corresponding consolidated balance sheet. As of December 31, 2017, the Company had deferred rent and rent incentives of \$6,813, of which \$1,165 and \$5,648, respectively, are classified as a short-term liability and a long-term liability in the corresponding consolidated balance sheet. Rent expense related to the operating leases for the years ended December 31, 2018, 2017, and 2016 was \$7,711, \$5,994, and \$3,678 respectively.

Future minimum rental commitments under the Company's operating leases at December 31, 2018 are as follows:

<u>Year Ending December 31,</u>	<u>Operating Lease Commitments</u>
2019	\$ 11,509
2020	11,077
2021	11,184
2022	10,878
2023 and thereafter	43,327
	<u>\$ 87,975</u>

Legal Matters

From time to time the Company may become involved in legal proceedings or be subject to claims arising in the ordinary course of its business. The Company is not presently subject to any pending or threatened litigation that it believes, if determined adversely to the Company, individually, or taken together, would reasonably be expected to have a material adverse effect on its business or financial results.

Guarantees and Indemnification Obligations

In the ordinary course of business, the Company enters into agreements with its customers that include commercial provisions with respect to licensing, infringement, indemnification, and other common provisions. The Company does not, in the ordinary course, agree to indemnification obligations for the Company under its contracts with customers. Based on historical experience and information known at December 31, 2018, 2017, and 2016, the Company has not incurred any costs for guarantees or indemnities.

7. Convertible Preferred Stock and Stockholders' Equity

On August 23, 2016, the Company completed a Series E convertible preferred stock, or Series E Preferred Stock, offering in the amount of \$59,732, net of issuance costs of approximately \$268. In connection with this issuance, the Company used the proceeds received to repurchase and retire certain outstanding shares of Series A, Series B, and Series C Preferred Stock and common stock, as well as certain vested stock options and restricted stock units from existing stockholders. The difference between the amount implicitly paid to repurchase the various classes of Preferred Stock and the corresponding carrying value of the underlying shares, or \$32,087, was treated as a deemed dividend and was recorded against retained earnings. As the shares of common stock were repurchased for constructive retirement, the excess purchase price over the corresponding par value was charged directly to retained earnings.

On June 21, 2017, the Company amended and restated its Certificate of Incorporation pursuant to the Third Amended and Restated Certificate of Incorporation. Under the Third Amended and Restated Certificate of Incorporation, the total number of shares of all classes of stock which the Company had authority to issue was (i) 120,020,700 shares of Class A common stock, par value \$0.001 per share, (ii) 80,013,800 shares of Class B common stock, par value \$0.001 per share, and (iii) 11,091,782 shares of Preferred Stock, par value \$0.001 per share, of which 3,333,000 shares were designated Series A Preferred Stock, 3,329,497 shares were designated Series B Preferred Stock, 1,648,978 shares were designated Series C Preferred Stock, 1,673,105 shares were designated Series D Preferred Stock, and 1,107,202 shares were designated Series E Preferred Stock. The Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock, and Series E Preferred Stock are referred to collectively as the Preferred Stock.

Upon the effectiveness of the Third Amended and Restated Certificate of Incorporation, (i) each share of Class A common stock issued and outstanding was recapitalized, reclassified, and reconstituted into two fully paid and non-assessable shares of outstanding Class A common stock and four fully paid and non-assessable shares of outstanding Class B common stock, and (ii) each share of Class B common stock of the Company issued and outstanding was recapitalized, reclassified, and reconstituted into two fully paid and non-assessable shares of outstanding Class A common stock and four fully paid and non-assessable shares of outstanding Class B common stock.

Further, upon the effectiveness of the Third Amended and Restated Certificate of Incorporation, the number of shares of common stock as to which each outstanding option to purchase common stock was exercisable for and each outstanding RSU was convertible into was adjusted such that upon exercise of outstanding stock options or vesting of outstanding RSUs, each holder would receive two fully paid and non-assessable shares of Class A common stock and four fully paid and non-assessable shares of Class B common stock in respect of each share of common stock previously underlying such option or RSU. The exercise price per share of common stock underlying each outstanding option was adjusted upon the effectiveness of the Third Amended and Restated Certificate of Incorporation to be one-sixth of the exercise price per share in effect immediately prior to such adjustment and the fair market value per share of common stock issuable upon settlement of such RSU was adjusted to be one-sixth of the fair market value per share in effect immediately prior to the recapitalization.

All share and per share data shown in the accompanying consolidated financial statements and related notes have been retroactively revised to reflect the share recapitalization.

On October 16, 2017, in connection with the closing of the IPO, all of the outstanding shares of Preferred Stock automatically converted into 20,188,226 shares of Class A common stock and 40,376,452 shares of Class B common stock. The 40,376,452 shares of Class B common stock subsequently converted into 40,376,452 shares of Class A common stock resulting in a total conversion of all outstanding shares of Preferred Stock into 60,564,678 shares of Class A common stock. Subsequent to the closing of the IPO, there were no shares of Preferred Stock outstanding.

Immediately following such conversion, the Company's Fourth Amended and Restated Certificate of Incorporation became effective. Pursuant to the Fourth Amended and Restated Certificate of Incorporation, the Company is authorized to issue up to 500,000,000 shares of Class A common stock, 100,000,000 shares of Class B common stock, and 10,000,000 shares of Preferred Stock, all with a par value of \$0.001 per share. As of December 31, 2018, the Preferred Stock is undesignated and no Preferred Stock is outstanding.

In addition, pursuant to the Fourth Amended and Restated Certificate of Incorporation, all shares of Class B common stock will automatically convert into shares of Class A common stock, on a share for share basis, upon the date falling after the first to occur of (1) the death of Langley Steinert, the Company's Chief Executive Officer and Chairman, (2) his voluntary termination of all employment with the Company and service on the Company's board of directors, or (3) the sum of the number of shares of capital stock held by Langley Steinert, by any Family Member of Langley Steinert, and by any Permitted Entity of Langley Steinert (as such terms are defined in the Fourth Amended and Restated Certificate of Incorporation), assuming the exercise and settlement in full of all outstanding options and convertible securities and calculated on an as-converted to Class A common stock basis, being less than 9,091,484. Shares of Class B common stock will not automatically convert into shares of Class A common stock upon the termination of Mr. Steinert's status as an officer and director, unless such termination is either made voluntarily by Mr. Steinert or due to Mr. Steinert's death. Once converted into Class A common stock, the converted shares of Class B common stock will not be reissued. In addition, if all shares of Class B common stock are converted into Class A common stock, then any outstanding options or convertible securities with the right to purchase or acquire shares of Class B common stock shall become a right to purchase or acquire shares of Class A common stock.

Common Stock

Each share of Class A common stock entitles the holder to one vote for each share on all matters submitted to a vote of the Company's stockholders at all meetings of stockholders and written actions in lieu of meetings. Each share of Class B common stock entitles the holder to ten votes for each share on all matters submitted to a vote of the Company's stockholders at all meetings of stockholders and written actions in lieu of meetings.

Holders of common stock are entitled to receive dividends, when and if declared by the Board.

At December 31, 2018, each share of Class B common stock was convertible into one share of Class A common stock at the option of the holder at any time. Automatic conversion of each share of Class B common stock will occur upon the occurrence of certain events, as described in the Fourth Amended and Restated Certificate of Incorporation.

Upon the effectiveness of the Company's Fourth Amended and Restated Certificate of Incorporation, additional terms of conversion and transfer were implemented as discussed above.

Preferred Stock

Prior to the Company's IPO, at which time all shares of Preferred Stock were converted into shares of common stock, the Company's Preferred Stock consisted of the following:

	Original Issue Price Per Share	Shares Authorized	Outstanding	Liquidation Amount	Carrying Value
Series A Preferred Stock	\$ 0.525053	3,333,000	2,824,703	\$ 1,483	\$ 1,483
Series B Preferred Stock	\$ 0.780899	3,329,497	2,938,486	2,295	2,295
Series C Preferred Stock	\$ 0.849012	1,648,978	1,550,612	1,316	1,316
Series D Preferred Stock	\$ 40.642989	1,673,105	1,673,105	68,000	67,872
Series E Preferred Stock	\$ 54.190650	1,107,202	1,107,202	60,000	59,732
		<u>11,091,782</u>	<u>10,094,108</u>	<u>\$ 133,094</u>	<u>\$ 132,698</u>

The holders of the Company's Preferred Stock had certain voting and dividend rights, as well as liquidation preferences and conversion privileges. All rights, preferences, and privileges associated with the Preferred Stock were terminated at the time of the Company's IPO in conjunction with the conversion of all outstanding shares of Preferred Stock into shares of common stock.

8. Stock-based Compensation

Equity Incentive Plans

The Company's Amended and Restated 2006 Equity Incentive Plan (the "2006 Plan") provided for the issuance of non-qualified stock options, restricted stock and stock awards to the Company's employees, officers, directors and consultants. The 2006 Plan authorized up to an aggregate of 3,444,668 shares of the Company's Class B common stock for such issuances. In conjunction with the effectiveness of the Company's 2015 Equity Incentive Plan (the "2015 Plan"), the Board voted that no further stock options or other equity-based awards may be granted under the 2006 Plan.

In 2015, the Board first adopted the 2015 Plan, which became effective on June 26, 2015. The 2015 Plan provided for the issuance of incentive stock options, non-qualified stock options, restricted stock, stock awards and restricted stock units ("RSUs") to employees, consultants and non-employee directors. As of the effective date of the 2015 Plan, up to 603,436 shares of common stock were authorized for issuance under the 2015 Plan. The 2015 Plan was amended and restated effective August 6, 2015 to permit the granting of RSUs under the 2015 Plan, remove Class B common stock from the pool of shares available for issuance under the 2015 Plan and make certain other desired changes. The 2015 Plan was further amended and restated at October 15, 2015 to add a ten-year term and to make certain other desired changes.

The 2015 Plan was further amended and restated effective August 22, 2016 to merge the 2006 Plan into the 2015 Plan, to increase the number of shares of Class A common stock that may be issued under the 2015 Plan, and to lengthen the term of the 2015 Plan to expire on August 21, 2026. In addition, pursuant to this amendment and restatement of the 2015 Plan, prior to giving effect to the recapitalization that occurred on June 21, 2017, there were (i) 618,691 shares of Class A common stock, plus (ii) 802,562 shares of Class B common stock authorized under the 2015 Plan; provided, however, that (1) the number of shares of Class A common stock was increased, on a share for share basis, by the number of shares of Class B common stock that were (a) subject to outstanding options granted under the 2006 Plan that expired, terminated, or were cancelled for any reason without having been exercised, (b) surrendered in payment of the exercise price of outstanding options granted under the 2006 Plan or (c) withheld in satisfaction of tax withholding upon exercise of outstanding options granted under the 2006 Plan, and the number of shares of Class B common stock reserved under the amended and restated 2015 Plan was decreased, on a corresponding share for share basis, (2) no new awards of Class B common stock could be granted under the amended and restated 2015 Plan, and (3) except with respect to outstanding options granted under the 2006 Plan that were exercised on or after the date of the amendment and restatement, no Class B common stock could be issued under the 2015 Plan.

In connection with the recapitalization that occurred on June 21, 2017, the 2015 Plan was further amended and restated to account for each outstanding common stock option being adjusted such that each share of common stock underlying such option became two shares of Class A common stock and four shares of Class B common stock underlying such option, and each outstanding RSU being adjusted such that each share of common stock issuable upon settlement of such RSU became two shares of Class A common stock and four shares of Class B common stock issuable upon settlement of such RSU. Pursuant to the 2015 Plan as further amended in connection with the recapitalization, there were (i) 3,181,740 shares of Class A common stock and (ii) 5,161,644 shares of Class B common stock authorized for issuance under the 2015 Plan.

In connection with the IPO, in October 2017, the Board adopted, and the Company's stockholders approved, the Omnibus Equity Compensation Plan (the "2017 Plan") for the purpose of granting incentive stock options, non-qualified stock options, stock awards, stock units, other share-based awards and cash awards to employees, advisors and consultants to the Company and its subsidiaries and non-employee members of the Company's board of directors. The 2017 Plan is the successor to the 2015 Plan. The 2017 Plan authorizes the issuance or transfer of the sum of: (i) 7,800,000 shares of the Company's Class A common stock, plus (ii) the number of shares of our Class A common stock (up to 4,500,000 shares) equal to the sum of (x) the number of shares of Class A common stock and Class B common stock of the Company subject to outstanding awards under the 2015 Plan as of October 10, 2017 that terminate, expire or are cancelled, forfeited, exchanged, or surrendered on or after October 10, 2017 without having been exercised, vested, or paid prior to October 10, 2017, including shares tendered or withheld to satisfy tax withholding obligations with respect to outstanding grants under the Prior 2015 Plan, plus (y) the number of shares of Class A common stock reserved for issuance under the 2015 Plan that remain available for grant under the 2015 Plan as of the October 10, 2017. The aggregate number of shares of Class A common stock that may be issued or transferred under the 2017 Plan pursuant to incentive stock options will not exceed 12,300,000 shares of Class A common stock. Unless determined otherwise by the Compensation Committee of the Board, as of the first trading day of January of each calendar year during the term of the 2017 Plan (excluding any extensions), eligible beginning with calendar year 2019, an additional number of shares of Class A common stock will be added to the number of shares of the Company's Class A common stock authorized to be issued or transferred under the 2017 Plan and the number of shares authorized to be issued or transferred pursuant to incentive stock options, equal to 4% of the total number of shares of our Class A common stock outstanding on the last trading day in December of the immediately preceding calendar year, or 6,000,000 shares, whichever is less, or such lesser amount as determined by the Board (the "Evergreen Increase"). The Compensation Committee of the Board determined to not effectuate the Evergreen Increase that was otherwise scheduled to have occurred on January 2, 2019. In conjunction with the adoption of the 2017 Plan, options and RSUs outstanding under the 2015 Plan will remain outstanding but no additional grants will be made from the 2015 Plan.

At December 31, 2018, 6,839,584 shares of Class A common stock were available for issuance under the 2017 Plan.

The following is a summary of the stock option activity for all stock-based compensation plans during the year ended December 31, 2018:

	Common Stock	Weighted- Average Exercise Price for Equity	Weighted- Average Contractual Life (In Years)	Aggregate Intrinsic Value ⁽¹⁾
Outstanding, December 31, 2017	5,041,540	\$ 1.60	6.0	\$ 143,059
Granted	—	—	—	—
Exercised	(3,197,179)	1.14	—	111,227
Forfeited and cancelled	(36,846)	5.47	—	—
Outstanding, December 31, 2018	<u>1,807,515</u>	\$ 2.35	5.9	\$ 56,716
Options exercisable at December 31, 2018	<u>1,522,101</u>	\$ 1.58	5.7	\$ 48,928

(1) The aggregate intrinsic value was calculated based on the positive difference, if any, between the estimated fair value of our common stock on December 31, 2018, 2017, and 2016 respectively, or the date of exercise, as appropriate, and the exercise price of the underlying options.

There were no options granted in the years ended December 31, 2018 and 2017. The weighted-average grant-date fair value of options granted was \$0.90 per share in 2016.

The aggregate intrinsic value for options exercised during the years ended December 31, 2017 and 2016 was \$2,238 and \$2,021, respectively.

The following is a summary of the RSU activity during the year ended December 31, 2018:

	Number of Shares	Weighted- Average Grant Date Fair Value	Aggregate Intrinsic Value
Unvested outstanding, December 31, 2017	2,372,380	\$ 12.34	\$ 71,124
Granted	1,917,043	35.79	
Vested	(1,087,279)	14.71	
Cancelled	(229,142)	19.46	
Unvested outstanding, December 31, 2018	<u>2,973,002</u>	\$ 26.06	\$ 100,279

The weighted-average grant-date fair value of RSUs granted was \$16.99 and \$3.89 per share in 2017 and 2016, respectively.

RSUs that vested and settled during the year ended December 31, 2018 totaled 1,781,201, which included 1,087,279 and 693,922 RSUs that vested in 2018 and 2017, respectively. RSUs that vested prior to April 10, 2018 did not settle until the expiration of shareholder lock-up agreements on such date.

The total fair value of RSUs vested was \$15,994 and \$2,505 in the years ended December 31, 2018 and 2017. No RSUs vested in the year ended December 31, 2016.

For the years ended December 31, 2018, 2017, and 2016, total stock-based compensation expense was \$20,794, \$5,028, and \$322, respectively. The following two tables show stock compensation expense by award type and where the stock compensation expense is recorded in the Company's consolidated statements of operations:

	Year Ended December 31,		
	2018	2017	2016
Options	\$ 247	\$ 281	\$ 322
RSUs	20,547	4,747	—
Total stock-based compensation	<u>\$ 20,794</u>	<u>\$ 5,028</u>	<u>\$ 322</u>

	Year Ended December 31,		
	2018	2017	2016
Cost of revenue	\$ 354	\$ 151	\$ 18
Sales and marketing expense	5,111	1,911	163
Product, technology, and development expense	9,865	1,637	104
General and administrative expense	5,464	1,329	37
	<u>\$ 20,794</u>	<u>\$ 5,028</u>	<u>\$ 322</u>

Excluded from stock-based compensation expense is \$490 and \$176 of capitalized software development costs in 2018 and 2017, respectively. Stock-based compensation expense related to capitalized software development costs was immaterial in 2016.

The income tax benefit from stock-based compensation expense was \$1,945, \$1,301, and \$67 in the years ended December 31, 2018, 2017, and 2016, respectively.

As of December 31, 2018, there was \$186 of unrecognized stock-based compensation expense related to unvested stock options, which is expected to be recognized over a weighted-average period of 1.1 years.

As of December 31, 2018, there was \$69,998 of unrecognized stock-based compensation expense, related to unvested RSUs which is expected to be recognized over a weighted-average period of 3.2 years.

Common Stock Reserved for Future Issuance

At December 31, 2018, the Company had reserved the following shares of voting common stock for future issuance:

Common stock options outstanding	1,807,515
Restricted stock units outstanding	2,973,002
Shares available for issuance under the 2017 Plan	6,839,584
Total shares of authorized common stock reserved for future issuance	<u>11,620,101</u>

9. Earnings Per Share

Net income per share for the year ended December 31, 2018 was computed by dividing net income by the weighted-average number of common shares outstanding during the reporting period. The Company computes the weighted-average number of common shares outstanding during the reporting period using the total number of shares of Class A common stock and Class B common stock outstanding as of the last day of the previous year end reporting period plus the weighted-average of any additional shares issued and outstanding during the reporting period.

Net income per share for the year ended December 31, 2017 and 2016 was computed using the two-class method, which includes the weighted-average number of shares of common stock outstanding during the period and other securities that participate in dividends (a participating security). As of December 31, 2016, and for periods during the year ended December 31, 2017, the Company had convertible Preferred Stock outstanding. The Company considered the convertible Preferred Stock to be participating securities because they included rights to participate in dividends with the common stock. On October 16, 2017, in connection with the closing of the IPO, all of the outstanding shares of convertible Preferred Stock automatically converted into 20,188,226 shares of Class A common stock and 40,376,452 shares of Class B common stock, the latter of which subsequently converted in full into shares of Class A common stock. As a result, there were no shares of Preferred Stock outstanding at the closing of the IPO and the Company has not issued any new shares of Preferred Stock since such closing.

Under the two-class method, basic net income (loss) per share attributable to common stockholders is computed by dividing the net income (loss) attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period. Diluted net income (loss) per share attributable to common stockholders is computed using the more dilutive of (1) the two-class method or (2) the if-converted method. The Company allocated net income first to preferred stockholders based on dividend rights under the Company's certificate of incorporation that was in effect prior to the closing of the IPO and then to preferred and common stockholders based on ownership interests. Net losses are not allocated to preferred stockholders as they do not have an obligation to share in the Company's net losses.

The Company has two classes of common stock authorized: Class A common stock and Class B common stock. The rights of the holders of Class A and Class B common stock are identical, except with respect to voting and conversion. Each share of Class A common stock is entitled to one vote per share and each share of Class B common stock is entitled to ten votes per share. Each share of Class B common stock is convertible into one share of Class A common stock at the option of the holder at any time or automatically upon certain events described in the Company's amended and restated certificate of incorporation, including on either the death or voluntary termination of the Company's Chief Executive Officer. The Company allocates undistributed earnings attributable to common stock between the common stock classes on a one-to-one basis when computing net income (loss) per share. As a result, basic and diluted net income (loss) per share of Class A common stock and per share of Class B common stock are equivalent.

During the year ended December 31, 2018, holders of Class B common stock converted 7,534,710 shares of Class B common stock to Class A common stock.

Diluted net income (loss) per share gives effect to all potentially dilutive securities. Potential dilutive securities for the years ended December 31, 2018, 2017 and 2016 consist of shares of common stock issuable upon the exercise of stock options and shares of common stock issuable upon the vesting of RSUs. Potential dilutive securities for the years ended December 31, 2017 and 2016 also included shares of common stock issuable upon the conversion of the outstanding Preferred Stock. The dilutive effect of these common stock equivalents is reflected in diluted earnings per share by application of the treasury stock method.

For the year ended December 31, 2018, dilutive net income per share was calculated by dividing net income by the weighted-average number of shares of common stock outstanding during the period plus the dilutive impact of stock options and shares of common stock issuable upon the vesting of RSUs. For the year ended December 31, 2017, the two-class method was used in the computation of diluted net income per share, which was equally as dilutive as the if-converted method. For the year ended December 31, 2016, the net loss attributable to common stockholders was divided by the weighted-average number of shares of common stock outstanding during the period to calculate diluted earnings per share. The dilutive effect of common stock equivalents has been excluded from the calculation as their effect would have been anti-dilutive due to the net losses incurred for the periods after including the effects of deemed dividends on the Preferred Stock.

The following table presents a reconciliation of the numerator and denominator used in the calculation of basic and diluted net income (loss) per share:

	Year Ended December 31,		
	2018	2017	2016
Numerator:			
Net income	\$ 65,170	\$ 13,199	\$ 6,497
Deemed dividend to preferred stockholders	—	—	(32,087)
Net income attributable to participating securities	—	(6,098)	—
Net income (loss) attributable to common stockholders — basic	<u>\$ 65,170</u>	<u>\$ 7,101</u>	<u>\$ (25,590)</u>
Net income	\$ 65,170	\$ 13,199	\$ 6,497
Deemed dividend to preferred stockholders	—	—	(32,087)
Net income attributable to participating securities	—	(5,829)	—
Net income (loss) attributable to common stockholders — diluted	<u>\$ 65,170</u>	<u>\$ 7,370</u>	<u>\$ (25,590)</u>
Denominator:			
Weighted-average number of shares of common stock used in computing net income per share attributable to common stockholders — basic	108,833,028	55,835,265	44,138,922
Dilutive effect of share equivalents resulting from stock options	3,009,748	4,290,362	—
Dilutive effect of share equivalents resulting from unvested restricted stock units	<u>1,521,936</u>	<u>511,957</u>	<u>—</u>
Weighted-average number of shares of common stock used in computing net income per share — diluted	113,364,712	60,637,584	44,138,922
Net income (loss) per share attributable to common stockholders:			
Basic	<u>\$ 0.60</u>	<u>\$ 0.13</u>	<u>\$ (0.58)</u>
Diluted	<u>0.57</u>	<u>0.12</u>	<u>(0.58)</u>

The following potentially dilutive common stock equivalents have been excluded from the calculation of diluted weighted-average shares outstanding for the years ended December 31, 2018, 2017, and 2016, as their effect would have been anti-dilutive for the periods presented:

	Year Ended December 31,		
	2018	2017	2016
Stock options outstanding	—	—	5,698,812
Restricted stock units outstanding	126,816	829	1,580,094
Convertible preferred stock	—	—	10,094,108

10. Income Taxes

The domestic and foreign components of income before income taxes are as follows:

	Year Ended December 31,		
	2018	2017	2016
United States	\$ 24,426	\$ 15,543	\$ 8,919
Foreign	1,058	294	26
Income before income taxes	<u>\$ 25,484</u>	<u>\$ 15,837</u>	<u>\$ 8,945</u>

The (benefit from) provision for income taxes contained the following components:

	Year Ended December 31,		
	2018	2017	2016
Current (benefit) provision:			
Federal	\$ (860)	\$ 3,262	\$ 1,440
State	92	431	223
Foreign	122	62	3
	<u>(646)</u>	<u>3,755</u>	<u>1,666</u>
Deferred (benefit) provision:			
Federal	(27,675)	(755)	880
State	(11,499)	(343)	(98)
Foreign	134	(19)	—
	<u>(39,040)</u>	<u>(1,117)</u>	<u>782</u>
Income tax (benefit) provision	<u>\$ (39,686)</u>	<u>\$ 2,638</u>	<u>\$ 2,448</u>

The Company's effective tax rate for the year ending December 31, 2018 is less than the U.S. federal statutory rate due to excess tax deductions related to stock-based compensation awards and federal and state research and development credits. The Company's effective tax rates for the years ending December 31, 2017 and 2016 are less than the U.S. federal statutory rate primarily due to federal and state research and development credits, excess tax deductions related to stock-based compensation awards, and tax deductions for fees incurred during the IPO process.

	Year Ended December 31,		
	2018	2017	2016
U.S. federal taxes at statutory rate	21.0%	35.0%	35.0%
State taxes, net of federal benefit	(25.6)	3.1	4.5
Nondeductible expenses	4.1	1.2	2.0
Tax deductible IPO costs	—	(9.3)	—
Stock compensation	(127.2)	(4.4)	—
Foreign rate differential	(0.4)	(0.4)	(0.1)
Credits	(28.4)	(9.0)	(15.0)
Other	0.7	0.5	1.0
Total	<u>(155.8)%</u>	<u>16.7%</u>	<u>27.4%</u>

The approximate income tax effect of each type of temporary difference and carryforward as of December 31, 2018 and 2017 is as follows:

	As of December 31,	
	2018	2017
Deferred tax assets:		
Net operating loss carryforwards	\$ 34,450	\$ —
Credit carryforwards	6,562	166
Stock-based compensation	1,945	1,301
Landlord allowance on leasehold improvements	1,908	1,078
Deferred rent	873	583
Accruals and reserves	1,074	606
	<u>46,812</u>	<u>3,734</u>
Deferred tax liability:		
Prepaid expenses	(931)	—
Deferred commissions	(3,187)	—
Unbilled revenue	(227)	—
Fixed assets	(3,581)	(2,909)
	<u>(7,926)</u>	<u>(2,909)</u>
Net deferred tax assets	<u>\$ 38,886</u>	<u>\$ 825</u>

The Company uses the asset and liability method to account for income taxes in accordance with ASC 740, *Income Taxes*. Under this method, deferred income taxes are recognized for the future tax consequences of differences between the tax and financial accounting bases of assets and liabilities at each reporting period. Deferred income taxes are based on enacted tax laws and statutory tax rates applicable to the period in which these differences are expected to affect taxable income. A valuation allowance is established when necessary to reduce deferred tax assets to the amounts expected to be realized.

The Tax Cuts and Jobs Act (the “TCJA”) was enacted on December 22, 2017. Among other things, the TCJA reduces the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred, and creates new taxes on certain foreign sourced earnings. In the first nine months of 2018 and year ended December 31, 2017, the Company recorded provisional amounts for certain enactment-date effects of the TCJA by applying the guidance of Staff Accounting Bulletin 118 because the Company had not yet completed the enactment-date accounting for these effects. In the year ended December 31, 2018 and 2017, the Company recorded tax expense related to the enactment-date effects of the TCJA that included recording the one-time transition tax liability related to undistributed earnings of certain foreign subsidiaries that were not previously taxed, adjusting deferred tax assets and liabilities and electing to account for global intangible low-taxed income (“GILTI”) as a period expense. The changes to 2017 enactment-date provisional amounts increased the tax expense by \$16 in 2018, which is included as a component of income tax expense from continuing operations.

The Company re-measured certain deferred tax assets and liabilities based on the rates at which they are anticipated to reverse in the future, which is generally 21%. The amount recorded related to the re-measurement of the Company’s deferred tax balance was a tax expense of \$151, recognized in the year ended December 31, 2017. There were no additional expenses recognized in the year ended December 31, 2018 related to the remeasurement of deferred tax assets and liabilities.

The one-time transition tax is based on the Company’s total post-1986 earnings and profits (“E&P”) for which the Company has previously deferred from U.S. income taxes. As of December 31, 2017, the Company recorded a provisional amount for the one-time transition tax liability of \$36 for its foreign subsidiaries, resulting in an increase of income tax provision of \$36. As of December 31, 2018, the Company has completed its calculation of the total post-1986 foreign E&P for these foreign subsidiaries. The Company has recognized an additional \$16 in its income tax expense for its one-time transition tax liability.

The TCJA subjects a U.S. shareholder to tax on GILTI earned by certain foreign subsidiaries. An entity can make an accounting policy election, per the FASB Staff Q&A, Topic 740, No. 5, *Accounting for Global Intangible Low-Taxed Income*, either to recognize deferred taxes for temporary basis differences expected to reverse as GILTI in future years or to provide for the tax expense related to GILTI in the year the tax is incurred as a period expense only. Because the Company was evaluating the provision of GILTI as of December 31, 2017, the Company recorded no GILTI-related deferred amounts in 2017. After further consideration in the current year, the Company has elected to account for GILTI as a period cost in the year the tax is incurred.

The Company has not provided a valuation allowance against its net deferred tax assets at December 31, 2018 and 2017. Based upon the level of historical U.S. earnings and future projections over the period in which the net deferred tax assets are deductible, at this time, management believes it is more likely than not that the Company will realize the benefits of these deductible differences.

As of December 31, 2018, the Company has federal and state net operating loss carryforwards of \$130,927 and \$111,234, respectively. The federal net operating losses carryforward indefinitely, subject to an annual limitation of 80% of taxable income. The state net operating losses, excluding Florida and Georgia which carryforward indefinitely, expire at various dates beginning in 2028. As of December 31, 2018, the Company has federal and state tax credit carryforwards of \$3,875 and \$3,401, respectively, available to reduce future tax liabilities that expire at various dates through 2038. Utilization of the net operating losses and tax credit carryforwards, respectively, may be subject to an annual limitation due to ownership change limitations that have occurred previously or that could occur in the future, as provided by Section 382 of the Code, or Section 382, as well as similar state provisions. Ownership changes may limit the amount of net operating losses or tax credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively. In general, an ownership change, as defined by Section 382, results from transactions that increase the ownership of 5% stockholders in the stock of a corporation by more than 50% in the aggregate over a three-year period.

The Company previously adopted the provision for uncertain tax positions under ASC 740. The adoption did not have an impact on the Company's retained earnings balance. At December 31, 2018 and 2017, the Company had no recorded liabilities for uncertain tax positions and had no accrued interest or penalties related to uncertain tax positions.

The Company permanently reinvests the earnings, if any, of its foreign subsidiaries and, therefore, does not provide for U.S. income taxes that could result from the distribution of those earnings to the U.S. parent. As of December 31, 2018, the amount of unrecognized deferred U.S. taxes on these earnings would be de minimis.

The Company and its subsidiaries are subject to various U.S. federal, state, and foreign income taxes. The Company is currently not subject to examination under the statute of limitations by the Internal Revenue Service and state jurisdictions for the tax years of 2014 and prior. In 2018, the Internal Revenue Service commenced a federal income tax audit with respect to our 2016 tax year. The Company is also currently open to examination in its foreign jurisdictions for tax years 2016 and after.

11. Segment and Geographic Information

The Company has two reportable segments, United States and International. Segment information is presented in the same manner as the Company's chief operating decision maker, or CODM, reviews the Company's operating results in assessing performance and allocating resources. The CODM reviews revenue and operating income (loss) for each reportable segment as a proxy for the operating performance of the Company's United States and International operations. The Company's chief executive officer is the CODM on behalf of both reportable segments.

The United States segment derives revenues from marketplace subscriptions, advertising services, and other revenues from customers within the United States. The International segment derives revenues from marketplace subscriptions, advertising services, and other revenues from customers outside of the United States. A majority of our operational overhead expenses, including technology and personnel costs, and other general and administrative costs associated with running our business, are incurred in the United States and not allocated to the International segment. Assets and costs discretely incurred by reportable segments, including depreciation and amortization, are included in the calculation of reportable segment income (loss) from operations. Segment operating income (loss) does not reflect the transfer pricing adjustments related to the Company's foreign subsidiaries, which are recorded for statutory reporting purposes. Asset information is assessed and reviewed on a global basis.

Information regarding the Company's operations by segment and geographical area is presented below:

	Year Ended December 31,		
	2018(1)	2017	2016
<i>Segment revenue:</i>			
United States	\$ 437,166	\$ 307,472	\$ 195,824
International	16,920	9,389	2,317
Total revenue	<u>\$ 454,086</u>	<u>\$ 316,861</u>	<u>\$ 198,141</u>
	Year Ended December 31,		
	2018(1)	2017	2016
<i>Segment income (loss) from operations:</i>			
United States	\$ 58,387	\$ 41,586	\$ 27,461
International	(35,196)	(26,312)	(18,890)
Total income from operations	<u>\$ 23,191</u>	<u>\$ 15,274</u>	<u>\$ 8,571</u>

- (1) Included in the year ended December 31, 2018 United States and International segments are revenue adjustments of \$94 and \$32, respectively, and operating income adjustments of \$8,613 and \$811, respectively, related to the Company's adoption of ASC 606.

As of December 31, 2018 and 2017, property and equipment held outside the United States was not material. Total assets in the United States segment account for 97% of the total consolidated assets.

12. Employee Benefit Plans

The Company maintains a defined contribution savings plan for all eligible U.S. employees under Section 401(k) of the Code. Effective July 1, 2017, the Company implemented a matching policy, under which the Company matches 50% of an employee's annual contributions to the 401(k) plan, up to a maximum of the lesser of (i) 6% of the employee's base salary, bonus and commissions paid during the year or (ii) \$5,000. Matching contributions are subject to vesting based on the employee's start date and length of service. Employees can designate the investment of their 401(k) accounts into several mutual funds. The Company does not allow investment in its common stock through the 401(k) plan.

During the year ended December 31, 2016, the Company did not make any employer contributions to the plan. During the year ended December 31, 2017, the Company began matching employee 401(k) contributions up to a set limit. Total employer contributions were \$1,953 and \$724 during the years ended December 31, 2018 and December 31, 2017, respectively.

13. Quarterly Financial Results (unaudited)

The following table presents certain unaudited quarterly financial information for the eight quarters in the period ended December 31, 2018. This information has been prepared on the same basis as the audited financial statements and includes all adjustments (consisting only of normal recurring adjustments) necessary to present fairly the unaudited quarterly results of operations set forth herein.

	Fourth Quarter	Third Quarter (1)	Second Quarter (1)	First Quarter (1)
Year ended December 31, 2018				
Revenue	\$ 126,090	\$ 119,125	\$ 110,296	\$ 98,575
Cost of revenue	6,871	6,412	5,959	5,569
Gross profit	119,219	112,713	104,337	93,006
Income from operations	6,902	5,877	3,953	6,459
Net income	12,450	13,882	33,343	5,495
Basic net income per share (1)	\$ 0.11	\$ 0.13	\$ 0.31	\$ 0.05
Diluted net income per share (1)	\$ 0.11	\$ 0.12	\$ 0.29	\$ 0.05
Year ended December 31, 2017				
Revenue	\$ 90,597	\$ 82,989	\$ 76,240	\$ 67,035
Cost of revenue	5,242	4,720	4,322	3,325
Gross profit	85,355	78,269	71,918	63,710
Income from operations	32	2,863	5,995	6,384
Net income	2,267	2,379	4,346	4,207
Basic net income per share (1)	\$ 0.02	\$ 0.02	\$ 0.04	\$ 0.04
Diluted net income per share (1)	\$ 0.02	\$ 0.02	\$ 0.04	\$ 0.04

(1) The amounts were computed independently for each quarter, and the sum of the quarters may not total the annual amounts.

(2) The amounts for the three months ended March 31, 2018, June 30, 2018 and September 30, 2018 were adjusted from previously reported amounts as a result of the adoption of ASC 606. Refer to the tables below for a reconciliation of the previously reported amounts to the adjusted amounts.

	First Quarter		
	As Reported	ASC 606 Adjustment	As Adjusted
Three Months ended March 31, 2018			
Revenue	\$ 98,701	\$ (126)	\$ 98,575
Cost of revenue	5,569	—	5,569
Gross profit	93,132	(126)	93,006
Income from operations	3,922	2,537	6,459
Net income	3,651	1,844	5,495
Basic net income per share	\$ 0.03	\$ 0.02	\$ 0.05
Diluted net income per share	\$ 0.03	\$ 0.02	\$ 0.05
	Second Quarter		
	As Reported	ASC 606 Adjustment	As Adjusted
Three Months ended June 30, 2018			
Revenue	\$ 110,325	\$ (29)	\$ 110,296
Cost of revenue	5,959	—	5,959
Gross profit	104,366	(29)	104,337
Income from operations	1,444	2,509	3,953
Net income	31,265	2,078	33,343
Basic net income per share	\$ 0.29	\$ 0.02	\$ 0.31
Diluted net income per share	\$ 0.28	\$ 0.01	\$ 0.29

	Third Quarter		
	As Reported	ASC 606 Adjustment	As Adjusted
Three Months ended September 30, 2018			
Revenue	\$ 119,042	\$ 83	\$ 119,125
Cost of revenue	6,412	—	6,412
Gross profit	112,630	83	112,713
Income from operations	3,635	2,242	5,877
Net income	12,135	1,747	13,882
Basic net income per share	\$ 0.11	\$ 0.02	\$ 0.13
Diluted net income per share	\$ 0.11	\$ 0.01	\$ 0.12

14. Subsequent Event

On January 8, 2019, the Company, through CarGurus UK Limited, a company incorporated in England & Wales and a wholly owned subsidiary of CarGurus Ireland Limited (a company incorporated in Ireland and a wholly owned subsidiary of the Company) (the “Purchaser”), completed its acquisition of PistonHeads, a UK-based automotive website (“PistonHeads”), by acquiring the entire issued share capital of Haymarket New4 Ltd. (a company incorporated in England & Wales and now known as PistonHeads Holdco Limited, “NewCo”) from Haymarket Media Group Ltd., a company incorporated in England & Wales (the “Seller”), on the terms and subject to the conditions set forth in the Put and Call Option Agreement dated December 3, 2018, by and among the Purchaser, the Seller and Haymarket Group Limited, a company incorporated in England & Wales. The PistonHeads website hosts used car classifieds, articles and forums. The Company paid an aggregate of 15,000 GBP, or approximately \$19,139, to acquire the business, inclusive of 1,000 GBP, or approximately \$1,276, that will be held in escrow to secure post-closing claims, subject to the terms and conditions of an escrow agreement between Purchaser and Seller. Upon completion of the acquisition, NewCo became a wholly owned subsidiary of Purchaser. The business combination is intended to expand the Company’s consumer audience in the UK. During the year ended December 31, 2018, the Company incurred total acquisition-related costs of \$452 related to the transaction. As the transaction occurred subsequent to period-end, the Company is still evaluating the purchase price allocation of the transaction but expects the primary assets acquired to be intangible assets and goodwill. Acquired tangible assets and assumed liabilities are expected to be immaterial. The allocation is expected to be finalized during the first half of 2019.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.**Evaluation of Disclosure Controls and Procedures**

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a- 15(e) and 15d- 15(e) under the Securities Exchange Act of 1934, as amended, as of the end of the period covered by this Annual Report on Form 10-K. Based on such evaluation, our principal executive officer and principal financial officer have concluded that as of December 31, 2018, our disclosure controls and procedures were effective.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) or 15d-15(f) of the Exchange Act. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that:

- (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2018, using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in its Internal Control-Integrated Framework (2013). Based on this assessment and those criteria, management concluded that our internal control over financial reporting was effective as of December 31, 2018.

The effectiveness of our internal control over financial reporting as of December 31, 2018, has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Changes in Internal Control over Financial Reporting

During the fourth quarter ended December 31, 2018, we implemented certain internal controls in connection with our adoption of ASC 606. There was no other change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the fourth quarter ended December 31, 2018 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of CarGurus, Inc.

Opinion on Internal Control over Financial Reporting

We have audited CarGurus, Inc.'s internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, CarGurus, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2018 consolidated financial statements of the Company and our report dated February 28, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Boston, Massachusetts
February 28, 2019

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this Item is incorporated herein by reference from the information in our Proxy Statement for our 2019 Annual Meeting of Stockholders, which we will file with the SEC within 120 days of the end of the fiscal year to which this Annual Report on Form 10-K relates.

Item 11. Executive Compensation.

The information required by this Item is incorporated herein by reference from the information in our Proxy Statement for our 2019 Annual Meeting of Stockholders, which we will file with the SEC within 120 days of the end of the fiscal year to which this Annual Report on Form 10-K relates.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this Item is incorporated herein by reference from the information in our Proxy Statement for our 2019 Annual Meeting of Stockholders, which we will file with the SEC within 120 days of the end of the fiscal year to which this Annual Report on Form 10-K relates.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this Item is incorporated herein by reference from the information in our Proxy Statement for our 2019 Annual Meeting of Stockholders, which we will file with the SEC within 120 days of the end of the fiscal year to which this Annual Report on Form 10-K relates.

Item 14. Principal Accountant Fees and Services.

The information required by this Item is incorporated herein by reference from the information in our Proxy Statement for our 2019 Annual Meeting of Stockholders, which we will file with the SEC within 120 days of the end of the fiscal year to which this Annual Report on Form 10-K relates.

Item 15. Exhibits, Financial Statement Schedules.

(a) Documents filed as a part of this Report:

(1) Financial Statements

The financial statements of CarGurus, Inc. are included in Item 8 of this Annual Report on Form 10-K.

(2) Financial Statement Schedules

All financial statements schedules are omitted as they are either not required or the information is otherwise included in the consolidated financial statements and related notes.

(3) Index to Exhibits

The documents listed in the Exhibit Index immediately preceding the signature page of this Annual Report on Form 10-K are incorporated by reference or are filed or furnished with this Annual Report on Form 10-K, in each case as indicated therein (numbered in accordance with Item 601 of Regulation S-K).

Item 16. Form 10-K Summary.

Not applicable.

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference			Exhibit Number	Filed Herewith
		Form	File Number	Filing Date		
3.1	Amended and Restated Certificate of Incorporation of the Registrant.	8-K	001-38233	October 16, 2017	3.1	
3.2	Amended and Restated Bylaws of the Registrant.	8-K	001-38233	October 16, 2017	3.2	
4.1	Specimen Class A common stock certificate of the Registrant.	S-1/A	333-220495	September 29, 2017	4.1	
4.2	Amended and Restated Investors' Rights Agreement, dated August 23, 2016, by and among the Registrant and certain of its stockholders.	S-1	333-220495	September 15, 2017	4.2	
10.1	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers.	S-1	333-220495	September 15, 2017	10.1	
10.2#	Amended and Restated 2006 Equity Incentive Plan.	S-1	333-220495	September 15, 2017	10.2	
10.3#	Amended and Restated 2015 Equity Incentive Plan and forms of agreements thereunder.	S-1/A	333-220495	September 29, 2017	10.3	
10.4#	Omnibus Incentive Compensation Plan and forms of agreements thereunder.	S-1/A	333-220495	September 29, 2017	10.4	
10.5#	Offer Letter, dated March 17, 2006, by and between the Registrant and Langley Steinert.	S-1	333-220495	September 15, 2017	10.5	
10.6#	Offer Letter, dated August 10, 2015, by and between the Registrant and Jason Trevisan.	S-1	333-220495	September 15, 2017	10.6	
10.7#	Offer Letter, dated October 24, 2014, by and between the Registrant and Samuel Zales.	S-1	333-220495	September 15, 2017	10.7	
10.8#	Offer Letter, dated November 18, 2016, by and between the Registrant and Thomas Caputo.					X
10.9#	Offer Letter, dated August 2, 2017, by and between the Registrant and Kathleen Patton.					X
10.10#	Offer Letter, dated March 7, 2008, by and between the Registrant and Oliver Chrzan.					X
10.11	Lease, dated as of October 8, 2014, by and between the Registrant and BCSP Cambridge Two Property LLC.	S-1	333-220495	September 15, 2017	10.8	
10.12	Office Lease Agreement, dated as of March 11, 2016, by and between 55 Cambridge Parkway, LLC and the Registrant.	S-1	333-220495	September 15, 2017	10.9	
10.13	First Amendment to Lease, dated as of July 30, 2016 by and between 55 Cambridge Parkway, LLC and the Registrant.	S-1	333-220495	September 15, 2017	10.10	
10.14#	Form of Non-Employee Director Restricted Stock Unit Agreement.	8-K	001-38233	March 26, 2018	10.1	
10.15#	CarGurus, Inc. Annual Incentive Plan.	8-K/A	001-38233	April 6, 2018	10.1	
10.16#	Form of Executive Restricted Stock Unit Agreement.	10-Q	001-38233	May 3, 2018	10.3	
10.17	Lease Agreement, dated as of June 19, 2018, by and between US Parcel A, LLC and CarGurus, Inc.	8-K	001-38233	June 20, 2018	10.1	
21.1	List of Subsidiaries of the Registrant.					X
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.					X

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	File Number	Filing Date	
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
32.1*	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
32.2*	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
101.INS	XBRL Instance Document.				X
101.SCH	XBRL Taxonomy Extension Schema Document.				X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.				X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.				X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.				X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.				X

Indicates a management contract or compensatory plan.

* The certifications furnished in Exhibit 32.1 and Exhibit 32.2 hereto are deemed to accompany this Annual Report on Form 10-K and will not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, except to the extent that the Registrant specifically incorporates it by reference.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CarGurus, Inc.

Date: February 28, 2019

By: /s/ Langley Steinert

Langley Steinert

Chief Executive Officer and Chairman of the Board of Directors

POWER OF ATTORNEY

Each person whose individual signature appears below hereby constitutes and appoints Langley Steinert and Jason Trevisan, and each of them, with full power of substitution and resubstitution and full power to act without the other, as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his substitute or substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this report has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated.

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Langley Steinert</u> Langley Steinert	Chief Executive Officer and Chairman of the Board of Directors (<i>Principal Executive Officer</i>)	February 28, 2019
<u>/s/ Jason Trevisan</u> Jason Trevisan	Chief Financial Officer and Treasurer (<i>Principal Financial and Accounting Officer</i>)	February 28, 2019
<u>/s/ Steven Conine</u> Steven Conine	Director	February 28, 2019
<u>/s/ Lori Hickok</u> Lori Hickok	Director	February 28, 2019
<u>/s/ Stephen Kaufer</u> Stephen Kaufer	Director	February 28, 2019
<u>/s/ Anastasios Parafestas</u> Anastasios Parafestas	Director	February 28, 2019
<u>/s/ Greg Schwartz</u> Greg Schwartz	Director	February 28, 2019
<u>/s/ Ian Smith</u> Ian Smith	Director	February 28, 2019



November 18, 2016

Tom Caputo

Dear Tom,

I am pleased to offer you the position of Senior Vice President - Products at CarGurus, Inc. ("CarGurus" or the "Company"), reporting to the Company's Chief Executive Officer. This letter will clarify the terms and conditions of your at-will employment with CarGurus, should you accept our offer.

1. Position. Your employment will begin on January 4, 2017 (the "Start Date"). Your primary place of work will be the Company's main offices, currently located at 2 Canal Park, Cambridge, MA, 02141.

2. Compensation & Benefits.

(a) Your semi-monthly salary of \$10,208.33, annualized at \$245,000, will be paid semimonthly on the 15th day and last day of each month and subject to taxes and other withholdings required by law. As an exempt employee you are required to exercise your specialized expertise, independent judgment and discretion to provide high-quality services. You are expected to work the number of hours required to meet the needs of the business.

(b) You will be eligible to participate in CarGurus Annual Discretionary Bonus Plan, through which you may be eligible to earn a target discretionary bonus of \$65,000, less applicable taxes and withholdings. Whether to grant a bonus, and in what amount, are determinations to be made in the sole discretion of the Company based on a variety of factors, including, but not limited to, your performance and the Company's performance. In order to remain eligible and receive a bonus award, if any, you must be employed by the Company at the time it makes bonus payments to employees for that year.

(c) You will be eligible for a one time Sign-On Bonus of \$35,000, less applicable taxes and withholdings, to be paid on your Start Date. Should your employment with CarGurus terminate, for any reason, within twelve months of your Start Date, you must immediately repay to CarGurus the Sign-On Bonus you received, and CarGurus may, in its discretion, deduct any unpaid Sign-On Bonus amount from any compensation, severance, commission or other amount due to you, subject to applicable laws.

(d) You will be eligible to participate in the Company's benefit plans on your first day of employment. Your participation in these plans will be subject to the terms of the applicable plan documents and generally applicable policies of the Company, as the same may be in effect from time to time; provided, however, that (i) during your first year of employment with the Company, you will be entitled to 20 days' paid vacation at such reasonable times as you and the Company may determine, subject to the Company's vacation and paid time off policies; and (ii) following the completion of your first year of employment with the Company, you will be entitled to 15 days' paid vacation annually at such reasonable times as you and the Company may determine, subject to the Company's vacation and paid time off policies. No representation is made, however, that any specific benefits now available will continue or that any other benefits will be made available. Additional information regarding the Company's benefit plans will be provided under separate cover.

3. Restricted Stock Units. The Company is prepared to offer to you the opportunity to acquire an equity interest in the Company upon the terms and conditions set forth below. Subject to the approval of the Company's Board of Directors, the Company will grant you 33,000 restricted stock units (the "RSU"), subject in all

respects to the terms and conditions of the Company's Amended and Restated 2015 Equity Incentive Plan (the "Plan") and the RSU grant agreement evidencing the terms and conditions of the grant.

- i. **Vesting Conditions.** The RSU will have a seven-year term and will be subject to service-based vesting and liquidity event-based vesting. The RSU will not vest (in whole or in part) if only one (or if neither) of the vesting requirements is satisfied on or before the seventh anniversary of the date of grant. If both the service-based requirement and the event-based requirement are satisfied on or before the seventh anniversary of the date of grant, the vesting date will be the first date upon which both of those requirements are satisfied. The service-based vesting is as follows: four year vesting during your employment with the Company, with the first 25% vesting on the first anniversary of the Start Date and an additional 6.25% vesting at the end of each three month period thereafter until the fourth anniversary of the Start Date. If a Transaction (as defined in the Plan) occurs during your employment and before the fourth anniversary of the Start Date, 50% of the portion of the RSU that is not vested as to the service-based vesting condition will accelerate and become fully vested. The liquidity event-based vesting is as follows: the first to occur of a Public Offering (as defined in the Plan) or the consummation of a Transaction. The liquidity event must occur within seven years following the grant date. If the first to occur during the seven-year term is a Public Offering, the RSU will be settled on the 180th day following the Public Offering.
- ii. **Termination of Employment.** If your employment is terminated by the Company without Cause (as defined below) or by you for any reason during the seven-year term of the RSU and before the liquidity event occurs, you will retain any portion of the RSU that has vested as to the service-based vesting condition and any portion of the RSU that has not vested as to the service-based vesting condition, will be forfeited upon termination of employment. The vested RSU may vest as to the liquidity event-based vesting condition following termination of employment other than for Cause to the extent the liquidity event occurs before the end of the seven-year term. If your employment is terminated by the Company for Cause during the seven-year term, any portion of the RSU, whether vested or unvested, will be forfeited.
- iii. **Definition of Cause.** For purposes of this Agreement and the RSU, "Cause" means a finding by the Board of Directors that you have (A) materially breached this Agreement, which breach has not been remedied by you within 30 days after written notice has been provided to you of such breach, (B) engaged in disloyalty to the Company, including, without limitation, fraud, embezzlement, theft, commission of a felony or proven dishonesty, (C) disclosed trade secrets or confidential information of the Company to persons not entitled to receive such information, (D) breached the Nondisclosure, Developments and Non-Competition Agreement, or (E) engaged in such other behavior detrimental to the interests of the Company as the Board of Directors reasonably determines.

4. Representations and Warranties. You represent that you are not bound by any employment contract, restrictive covenant or other restriction preventing you from entering into employment with, or carrying out your responsibilities for, CarGurus, or which is in any way inconsistent with the terms of this offer letter.

5. Proof of Legal Right to Work; Background Check; Nondisclosure, Developments and Non-Competition Agreement.

(a) As a condition of employment, you will be required to provide us with proof of your identity and legal authorization to work in the United States. You will receive an email from HireRight to complete your Form I-9. Please bring the appropriate documents listed on this form with you on your Start Date. If you fail to submit such proof, federal law prohibits us from commencing employment.

(b) As a condition of employment, you will also be required to execute the Company's standard Nondisclosure, Developments and Non-Competition Agreement on or prior to your Start Date.

(c) In addition, CarGurus conducts a background investigation on all new employees, which includes, but is not limited to, previous employment, education, and criminal history. Your employment is contingent on our review of the results of such investigation.

6. At-Will Employment. If you accept the Company's offer of employment, your employment will be on an "at-will" basis, meaning either you or the Company may terminate the employment relationship at any time, for any reason or no reason, with or without cause and with or without notice. Although your job duties, title, compensation and benefits, as well as the Company's personnel policies and procedures, may change from time to time, the "at-will" nature of your employment may only be changed by a written agreement signed by you and by an authorized representative of the Company, which expressly states the intention to modify the at-will nature of your employment.

7. Miscellaneous. The foregoing terms supersede any prior discussions, oral or written, which we have had relating to your employment and the other matters discussed in this letter. The resolution of any disputes under this letter will be governed by Massachusetts law. Additionally, it is understood that from time to time, CarGurus reviews its benefits, policies and practices and may alter or change them at its discretion.

Tom, we look forward to you joining our organization. In order to confirm your intention to commence employment with CarGurus on the Start Date on the terms set forth in this letter, please sign one copy of this letter and return it to me. The other copy is for your records. If you have any questions, please do not hesitate to speak with me.

This offer expires at the end of the day, November 25, 2016.

Sincerely,

/s/ Langley Steinert

Langley Steinert
CEO/Founder
CarGurus, Inc.

ACKNOWLEDGEMENT

I will commence employment on the Start Date on the terms set forth in this letter.

/s/ Tom Caputo
Tom Caputo

11/23/16

Date



August 2, 2017

Kathleen Patton

Dear Kathleen,

I am very pleased to offer you the position of Senior Vice President, General Counsel at CarGurus, Inc. (“CarGurus” or the “Company”), reporting to Langley Steinert. This letter will clarify the terms and conditions of your at-will employment with CarGurus, should you accept our offer.

1. Position. Your employment will begin on August 21, 2017 (the “Start Date”). Your primary place of work will be the Company’s main offices, currently located at 2 Canal Park, Cambridge, MA, 02141.

2. Compensation & Benefits.

(a) Your semi-monthly salary of \$10,416.66, annualized at \$250,000, will be paid semimonthly on the 15th day and last day of each month and subject to taxes and other withholdings required by law. As an exempt employee you are required to exercise your specialized expertise, independent judgment and discretion to provide high-quality services. You are expected to work the number of hours required to meet the needs of the business.

(b) You will be eligible to participate in CarGurus Annual Discretionary Bonus Plan, through which you may be eligible to earn a discretionary bonus up to 26% of your annualized base salary, less applicable taxes and withholdings. For the current fiscal year, the amount you are eligible to earn under the CarGurus Annual Discretionary Bonus Plan will be prorated based upon your start date. Whether to grant a bonus, and in what amount, are determinations to be made in the sole discretion of the Company based on a variety of factors, including, but not limited to, your performance and the Company’s performance. In order to remain eligible and receive a bonus award, if any, you must be employed by the Company at the time it makes bonus payments to employees for that year.

(c) You will be eligible for a one time Sign-On Bonus of \$25,000, less applicable taxes and withholdings, to be paid within your first sixty days of employment. Should your employment with CarGurus terminate, for any reason, within twelve months of your Start Date, you must immediately repay to CarGurus the Sign-On Bonus you received, and CarGurus may, in its discretion, deduct any unpaid Sign-On Bonus amount from any compensation, severance, commission or other amount due to you, subject to applicable laws.

(d) You will be eligible to participate in the Company’s benefit plans on your first day of employment. Your participation in these plans will be subject to the terms of the applicable plan documents and generally applicable policies of the Company, as the same may be in effect from time to time. No representation is made, however, that any specific benefits now available will continue or that any other benefits will be made available. You will be eligible to accrue 15 days of vacation time in year 1-4. After year 4 you will be granted an additional week. Additional information regarding the Company’s benefit plans will be provided under separate cover.

3. Eligibility to Participate in Amended and Restated 2015 Equity Incentive Plan. You will be eligible to participate in the Company’s Amended and Restated 2015 Equity Incentive Plan (the “Plan”), under

which the Company grants to employees restricted stock units (“RSUs”) that are subject to service-based and Company performance-based vesting conditions. We are prepared to recommend to the Company’s Board of Directors an award to you of 150,000 RSUs, which number was determined in accordance with the Company’s established schedule specifying the applicable number of RSUs based upon an employee’s job classification and salary. Any such grant of RSUs will be conditioned up the approval of the Company’s Board of Directors and will be subject in all respects to the terms and conditions of the Plan and an RSU grant agreement evidencing the terms and conditions of the grant. The Board of Directors retains the discretion to change the number of RSUs that may be granted to you, or to determine not to grant any RSUs to you.

- i. Vesting Conditions. The RSU will have a seven-year term and will be subject to service-based vesting and liquidity event-based vesting. The RSU will not vest (in whole or in part) if only one (or if neither) of the vesting requirements is satisfied on or before the seventh anniversary of the date of grant. If both the service-based requirement and the event-based requirement are satisfied on or before the seventh anniversary of the date of grant, the vesting date will be the first date upon which both of those requirements are satisfied. The service-based vesting is as follows: four year vesting during your employment with the Company, with the first 25% vesting on the first anniversary of the Start Date and an additional 6.25% vesting at the end of each three month period thereafter until the fourth anniversary of the Start Date. If a Transaction (as defined in the Plan) occurs during your employment and before the fourth anniversary of the Start Date, 50% of the portion of the RSU that is not vested as to the service-based vesting condition will accelerate and become fully vested. The liquidity event-based vesting is as follows: the first to occur of a Public Offering (as defined in the Plan) or the consummation of a Transaction. The liquidity event must occur within seven years following the grant date. If the first to occur during the seven-year term is a Public Offering, the RSU will be settled on the 180th day following the Public Offering.
- ii. Termination of Employment. If your employment is terminated by the Company without Cause (as defined below) or by you for any reason during the seven-year term of the RSU and before the liquidity event occurs, you will retain any portion of the RSU that has vested as to the service-based vesting condition and any portion of the RSU that has not vested as to the service-based vesting condition, will be forfeited upon termination of employment. The vested RSU may vest as to the liquidity event-based vesting condition following termination of employment other than for Cause to the extent the liquidity event occurs before the end of the seven-year term. If your employment is terminated by the Company for Cause during the seven-year term, any portion of the RSU, whether vested or unvested, will be forfeited.
- iii. Definition of Cause. For purposes of this Agreement and the RSU, “Cause” means a finding by the Board of Directors that you have (A) materially breached this Agreement, which breach has not been remedied by you within 30 days after written notice has been provided to you of such breach, (B) engaged in disloyalty to the Company, including, without limitation, fraud, embezzlement, theft, commission of a felony or proven dishonesty, (C) disclosed trade secrets or confidential information of the Company to persons not entitled to receive such information, (D) breached the Nondisclosure, Developments and Non-Competition Agreement, or (E) engaged in such other behavior detrimental to the interests of the Company as the Board of Directors reasonably determines.

4. Representations and Warranties. You represent that you are not bound by any employment contract, restrictive covenant or other restriction preventing you from entering into employment with, or carrying out your responsibilities for, CarGurus, or which is in any way inconsistent with the terms of this offer letter.

5. Proof of Legal Right to Work; Background Check; Nondisclosure, Developments and Non-Competition Agreement.

(a) As a condition of employment, you will be required to provide us with proof of your identity and legal authorization to work in the United States. You will receive an email from HireRight to complete

your Form 1-9. Please bring the appropriate documents listed on this form with on your Start Date. If you fail to submit such proof, federal law prohibits us from commencing employment.

(b) As a condition of employment, you will also be required to execute the Company's standard Nondisclosure, Developments and Non-Competition Agreement on or prior to your Start Date.

(c) In addition, CarGurus conducts a background investigation on all new employees, which includes, but is not limited to, previous employment, education, and criminal history. Your employment is contingent on our review of the results of such investigation.

6. At-Will Employment. If you accept the Company's offer of employment, your employment will be on an "at-will" basis, meaning either you or the Company may terminate the employment relationship at any time, for any reason or no reason, with or without cause and with or without notice. Although your job duties, title, compensation and benefits, as well as the Company's personnel policies and procedures, may change from time to time, the "at-will" nature of your employment may only be changed by a written agreement signed by you and by an authorized representative of the Company, which expressly states the intention to modify the at-will nature of your employment.

7. Miscellaneous. The foregoing terms supersede any prior discussions, oral or written, which we have had relating to your employment and the other matters discussed in this letter. The resolution of any disputes under this letter will be governed by Massachusetts law. Additionally, it is understood that from time to time, CarGurus reviews its benefits, policies and practices and may alter or change them at its discretion.

Kathleen, we look forward to you joining our organization. In order to confirm your intention to commence employment with CarGurus on the Start Date on the terms set forth in this letter, please sign one copy of this letter and return it to me. The other copy is for your records. If you have any questions, please do not hesitate to speak with me.

This offer expires at the end of the day, August 8, 2017.

Sincerely,

/s/ Langley Steinert

Langley Steinert
Chief Guru
CarGurus, Inc.

ACKNOWLEDGEMENT

I will commence employment on the Start Date on the terms set forth in this letter.

/s/ Kathleen Patton

Kathleen Patton

August 8, 2017

Date

CARGURUS, LLC
2 Brattle Square, 3rd Floor
Cambridge, MA 02138

March 7, 2008

Oliver Chrzan

Dear Oliver,

We are pleased to extend you this offer of full-time employment to become Sr. Engineer at CarGurus, LLC, a Massachusetts limited liability company (the "Company"). This offer, which will remain in effect until March 12, 2008, can be accepted by countersigning the enclosed copy of this letter where indicated at the end of this letter and returning the countersigned copy to me.

We are excited about the contributions that we expect you will make to the success of the Company, and would like your employment to begin as soon as possible. Accordingly, we and you mutually agree to a start date of March 12, 2008 (the "Start Date").

Duties and Extent of Service

As Sr. Engineer you will be a member of the Development team. You will have responsibility for performing those duties as are customary for, and are consistent with, such position, as well as those duties as the CTO may from time to time designate. Except for vacations and absences due to temporary illness, you will be expected to devote your full time and effort to the business and affairs of the Company.

Compensation

a. Base Salary

In consideration of your employment with the Company, the Company will pay you a base salary of One Hundred Ten Thousand Dollars (\$110,000) per year, such payments to be made as customarily disbursed by the Company to its employees. Along with other employees of the Company, your base salary will be reviewed for readjustment on an annual basis.

b. Annual Discretionary Bonus

At such time as the company has a profitable year (defined as being cash flow positive for a full annual fiscal year), you will become eligible for an annual discretionary bonus.

c. Fringe Benefits.

You will be entitled to participate from time to time in all fringe benefits made available to employees of the Company. No representation is made, however, that any specific fringe benefits now available will continue or that any other fringe benefits will be made available. Notwithstanding the foregoing, the following benefits will, in any event, be available to you.

- (i) Health Insurance. If elected by you, you may participate in the Company's health insurance program, and the Company will pay that portion of the premium for you, on a basis and pursuant to a program, substantially the same as that offered to other employees of the Company.
- (ii) Vacations. You will be entitled to three weeks' paid vacation annually at such reasonable times as you and the Company may determine.
- (iii) Expense Reimbursement. The Company will reimburse you for all ordinary and necessary expenses incurred on behalf of the Company and in accordance with its reimbursement policy.

Equity.

As a Sr. Engineer, the Company is prepared to offer to you the opportunity to acquire an equity interest in the Company upon the terms and conditions set forth below. The Company will grant you an option to purchase 56,536 Company Common Units at a price of fifteen cents (\$.15) per unit (the "Option Units") pursuant to the terms of the Company's 2006 Unit Option Plan, to be adopted by the Company (the "Plan"). The Option Units shall be subject to four year vesting during (and only during) your employment by the Company, with the first twenty five percent (25%) vesting on the first anniversary of the Start Date and an additional 6.25% vesting at the end of each three months thereafter until all of the options to acquire Option Units are fully vested. In addition to the vesting provisions set forth above, all of any then unvested Option Units and options to acquire Option Units will become exercisable and vested if (a) the Company is sold or there is a "change in control" (as defined in the agreements referenced below), other than through transfers to employees, additional equity financing or public offerings. Any Option Units that are unvested on the termination of your employment shall be void and of no force or effect. Vested options for Option Units may be exercised up to the first to occur of the date which is the earlier of the expiration of five years from the Grant Date, as defined in the Plan, or ninety days after termination of your employment by the Company, in each case in accordance with the terms of the Plan.

Promptly following the Start Date, the Company will prepare any and all documentation necessary to implement your options for Option Units and the vesting thereof as provided above. You understand that the Option Units purchased by you will be subject to the same risks as those facing other members of the Company, including, without limitation, the possibility of dilution in the event that the Company issues additional Preferred or Common Units.

Proprietary Information and Inventions

Prior to commencing your employment with the Company, you agree to sign a copy of the Company's standard Nondisclosure, Developments and Non-Competition Agreement, a copy of which is attached as Exhibit A hereto. By signing below you represent that you are free to enter into this agreement and the Nondisclosure, Developments and Non-Competition Agreement and carry out the obligations hereunder and thereunder without any conflict with any prior agreements to which you are a party.

Termination

You acknowledge that the employment relationship between the Company and you is at-will, meaning that the employment relationship may be terminated by the Company or you for any reason or for no reason. However, the Company and you agree to make reasonable efforts to provide the other party at least thirty (30) days' written notice prior to termination of the employment relationship. You acknowledge that, in connection with any termination of your employment with the Company, you will assist the Company in its efforts to find a new Sr. Engineer and will provide such transitional assistance as the Company may reasonably require. In connection with the foregoing, the Company agrees that should your employment be terminated, you will receive as your sole and only payments on account of such termination (and subject to execution of appropriate documentation to this effect) accrued compensation through the date of termination. In addition, COBRA rights will be available to you.

Governing Law and Jurisdiction

This agreement shall be governed by and construed in accordance with the internal substantive laws of the Commonwealth of Massachusetts. The Company and you hereby expressly consent and agree that any dispute, controversy, legal action or other proceeding that arises from, concerns or touches this agreement shall be brought in either the Superior Court of Massachusetts or the United States District Court for the District of Massachusetts. The Company and you hereby acknowledge that said courts have sole and exclusive jurisdiction over any such dispute or controversy, and that the Company and you hereby waive any objection to personal jurisdiction or venue in these courts, and waive any right to jury trial.

Entire Agreement; Amendment

This agreement (together with the Nondisclosure, Developments and NonCompetition Agreement) and the Plan set forth the sole and entire agreement and understanding between the Company and you with respect to the specific matters contemplated and addressed hereby and thereby. No prior agreement, whether written or oral, shall be construed to change or affect the operation of this agreement or the other agreements contemplated hereby in accordance with their terms, and any provision of any such prior agreement which conflicts with or contradicts any provision of this agreement or the other agreements contemplated hereby is hereby revoked and superseded.

This agreement may be amended or terminated only by a written instrument executed both by you and the Company, acting through its Board of Directors.

We are excited to have you on board as a Sr. Engineer. Please acknowledge your acceptance of this offer and the terms of this agreement by signing below and returning a copy to me.

Sincerely,
CARGURUS, LLC
By: /s/ Langley Steinert

I hereby acknowledge that I have had a full and adequate opportunity to read, understand and discuss the terms and conditions contained in this agreement prior to signing hereunder.

Agreed to and Accepted:

Date: /s/ Oliver Chrzan
3/12/08

Subsidiaries of CarGurus, Inc.

CarGurus Canada, Inc., a company incorporated under the laws of the Province of British Columbia

CarGurus Ireland Limited, an Irish Private Company Limited by Shares

CarGurus Securities Corp., a Massachusetts corporation

CarGurus UK Limited, a U.K. Private Limited Company

CGSC, Inc., a Massachusetts corporation

Pistonheads Holdco Limited, a U.K. Private Limited Company

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-221090) pertaining to the Omnibus Incentive Compensation Plan and the Amended and Restated 2015 Equity Incentive Plan of CarGurus, Inc. of our reports dated February 28, 2019, with respect to the consolidated financial statements of CarGurus, Inc. and the effectiveness of internal control over financial reporting of CarGurus, Inc., included in this Annual Report (Form 10-K) for the year ended December 31, 2018.

/s/ Ernst & Young LLP

Boston, Massachusetts
February 28, 2019

**CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Langley Steinert, certify that:

1. I have reviewed this annual report on Form 10-K of CarGurus, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 28, 2019

By: /s/ Langley Steinert

Langley Steinert

Chief Executive Officer and Chairman of the Board of Directors
(Principal Executive Officer)

**CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Jason Trevisan, certify that:

1. I have reviewed this annual report on Form 10-K of CarGurus, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 28, 2019

By: /s/ Jason Trevisan

Jason Trevisan
Chief Financial Officer and Treasurer
(Principal Financial Officer and Principal Accounting Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of CarGurus, Inc. (the "Company") for the period ending December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Langley Steinert, Chief Executive Officer and Chairman of the Board of Directors of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, based on my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: February 28, 2019

By: /s/ Langley Steinert

Langley Steinert

Chief Executive Officer and Chairman of the Board of Directors
(Principal Executive Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of CarGurus, Inc. (the "Company") for the period ending December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jason Trevisan, Chief Financial Officer and Treasurer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, based on my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: February 28, 2019

By: /s/ Jason Trevisan

Jason Trevisan

Chief Financial Officer and Treasurer

(Principal Financial Officer and Principal Accounting Officer)