Zillow awards $1 million to data scientists for improving its Zestimate algorithm
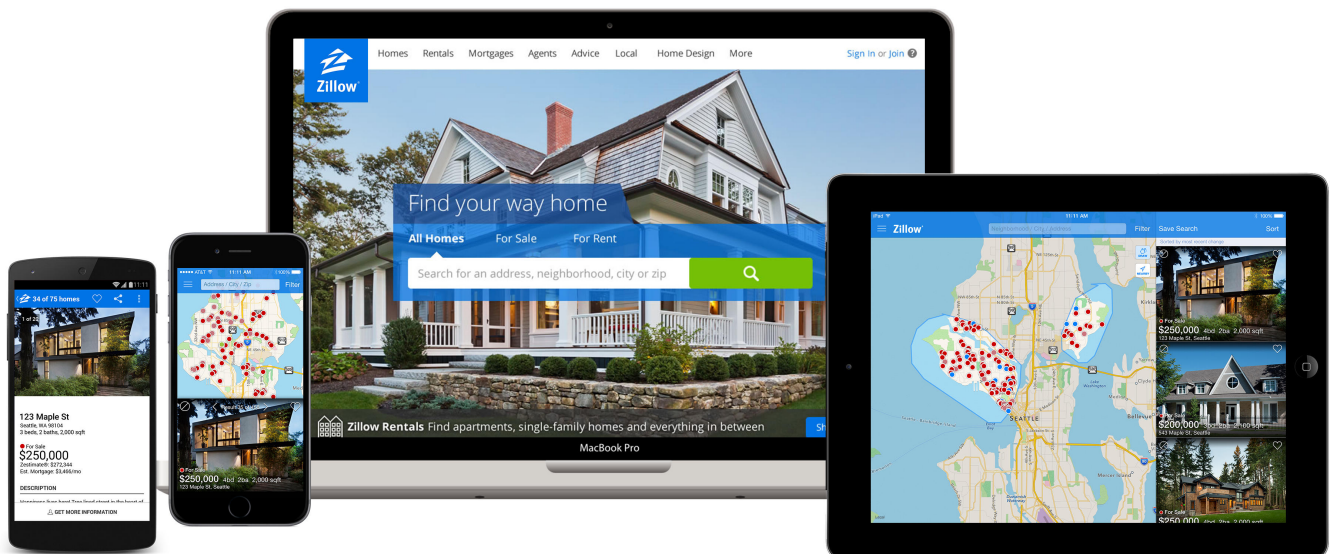
The winners of the company's Zillow Prize AI contest created an algorithm that's 13 percent more accurate than Zillow's current model.

By Natalie Gagliordi for Between the Lines | January 30, 2019 -- 17:58 GMT (09:58 PST) | Topic: Artificial Intelligence

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Online real estate database Zillow (http://www.zillow.com/) this week announced the winners of Zillow Prize (https://www.zillow.com/promo/zillow-prize/), the company's $1 million competition to improve the accuracy of the Zestimate home estimator. Introduced in 2006, the Zestimate is an algorithm that today estimates the market value of roughly 110 million homes in the US. While Zillow has improved

the accuracy of the Zestimate algorithm considerably since its inception, average home estimates are still about $10,000 off of the actual sale price for a typical home.

The goal with the AI competition -- which was hosted on Google's Kaggle platform -- was to find new machine learning techniques and statistical models that would help reduce the Zestimate's current 4.5 percent margin of error.

According to Zillow, the winning team -- Team ChaNJestimate -- created an algorithm that's 13 percent more accurate than Zillow's current model. The team utilized deep neural networks to directly estimate home values and remove outlier data points that fed into their algorithm.

They also leveraged external variables that factor into a home's estimated value, like data on rental rates, commute times, and home prices, along with contextual information such as road noise, to bolster the model's precision.

Zillow said its team of data scientists is already incorporating the winning team's algorithm into the Zestimate model, as well as other AI approaches introduced by top Zillow Prize competitors. Zillow is hoping that future Zestimates will be be about $1,300 closer to the sale price thanks to the improved models.

Beyond improving the Zestimate, Zillow said the competition also points to how tech companies are leaning on new approaches to gain AI knowledge in a competitive market. Instead of relying solely on its internal data science team, the competition let Zillow tap into a larger and more diverse talent pool with equally beneficial results.

"Zillow Prize is a perfect example of the innovative ideas and new approaches to problems that come from crowdsourcing within a community of thousands of diverse, talented data scientists," said Stan Humphries, Zillow's chief analytics officer and creator of the Zestimate. "The machine learning expertise and imaginative solutions we saw demonstrate the power of what data scientists can achieve when challenged with intriguing intellectual problems, like estimating the value of millions of homes."

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