Ames Housing Price Model

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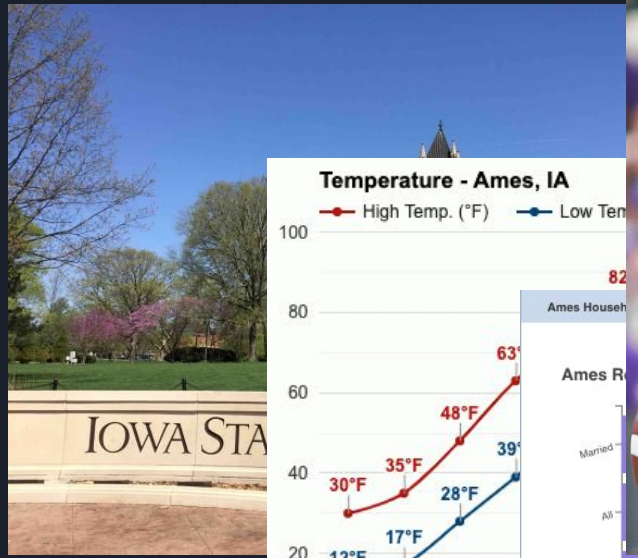
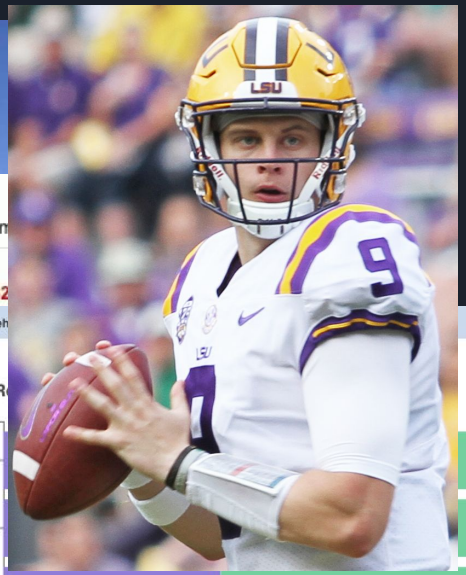
Data Scientist - General Assembly

Agenda

- Brief overview of Ames, Iowa
- What do today's homebuyers look for?
- What the model does
- How the model works
- Why I believe you should use it
- Q/A

A little bit about Ames, IA





Ames Household Types

Type	Owner	Renter
Married	76.6%	23.4%
All	40.8%	59.2%
Female	38.7%	61.3%
Male	37.4%	62.6%
Non Family	19.4%	80.6%

40.8% Rate of Home Ownership

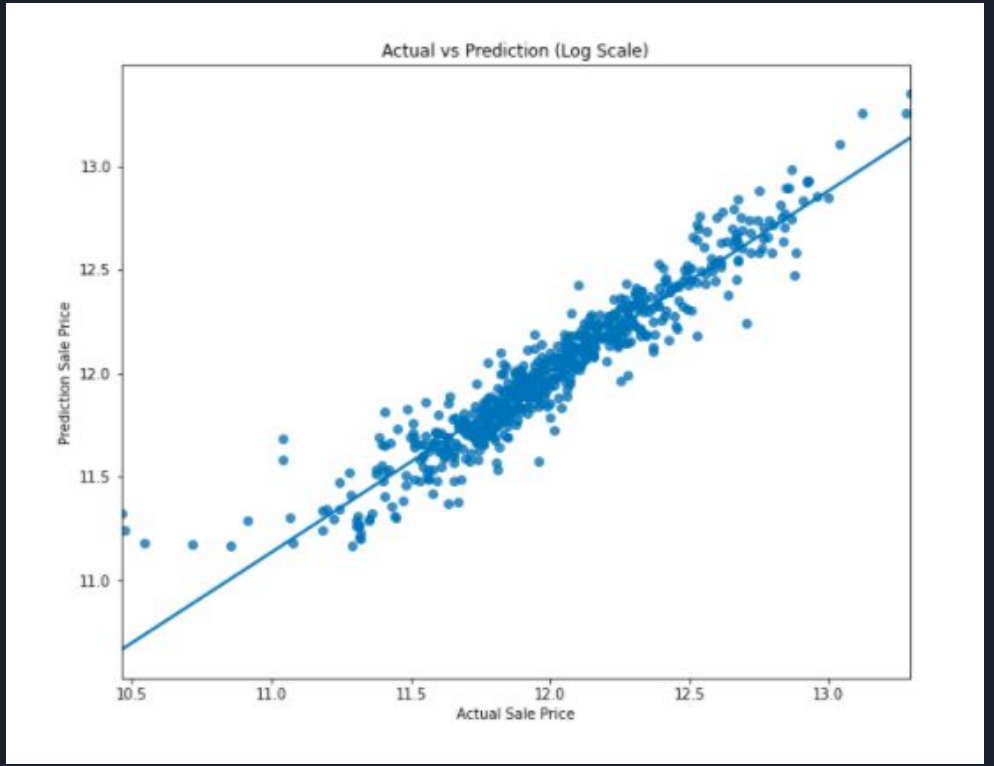
What do today's homebuyers look for?

1. Back porch or deck
2. Renovated kitchen
3. Hardwood flooring
4. Finished garage
5. Open floor plan
6. Finished basement
7. Natural sunlight in at least one room
8. Renovated bathrooms
9. Energy-efficient
10. Renovated bedrooms

Source: **https://www.southernliving.com/home-features-buyers-want**

What does the model do?

Based on a number of features, my model can learn and make housing price predictions!



How the model works

Feed	Learn	Predict
Features (Exterior/Interior) • Living space (Sq. ft) • Quality • Age • Bedrooms • Bathrooms • Garage? • Pool? • Porch? • Fireplace? • And many more...	Which features are important? Which features have statistical significance? Coefficients	Ridge Lasso ElasticNet

Why you should use the model

	Ridge	Lasso	ElasticNet
R^2	.90	.90	.90
MSE (Log)	.01635	.01633	.01640
RMSE (Log)	.1278	.1278	.1280
MSE (Exp)	$4.928 * 10^8$	$4.727 * 10^8$	$4.757 * 10^8$
RMSE (Exp)	$2.219 * 10^4$	$2.174 * 10^4$	$2.181 * 10^4$

Resources:

http://www.city-data.com/city/Ames-Iowa.html

https://www.weather-us.com/en/iowa-usa/ames-climate

https://www.southernliving.com/home-features-buyers-want

Q&A