



# Ames, IA: A Favorable Market for Tech Expansion?



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# Zillow's Factors That Could Suggest Tech Growth:

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- Housing Affordability
- Market "Hotness"
- Demographics & Labor Market
- Tech Availability
- Livability

# Focus: Housing Affordability

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- Zillow needs help assessing whether or not Ames, IA would make a favorable market (in terms of affordability) for tech companies looking to expand.

# Approach

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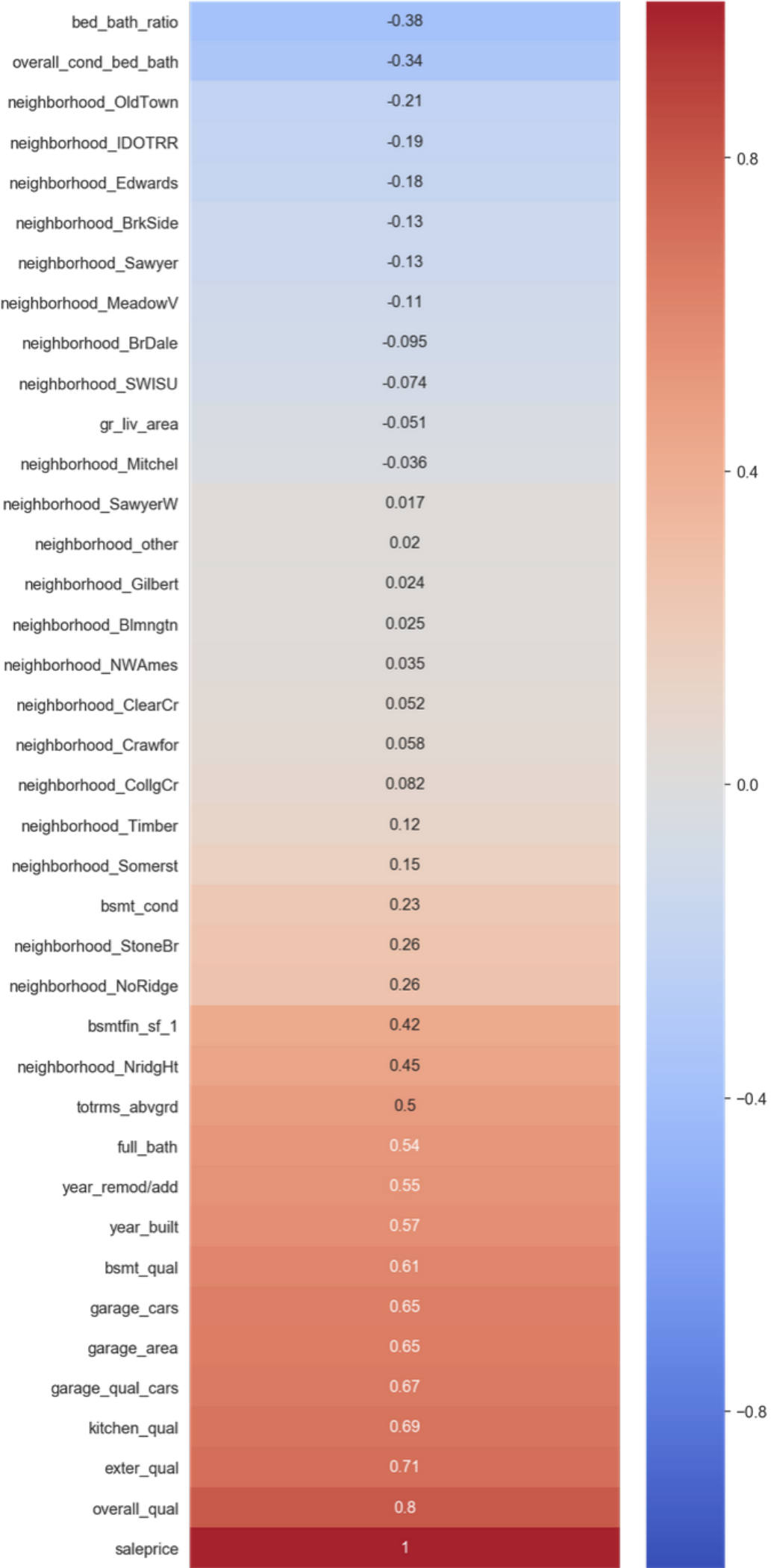
- Let's use Linear Regression, Ridge, and Lasso to find the best model that will predict housing prices and be implemented over the course of a few years (long-term goal).
- Compare  $R^2$  scores for each model.

# What's Happening to Housing in Current Tech-Dominant Markets (LA, SF)?

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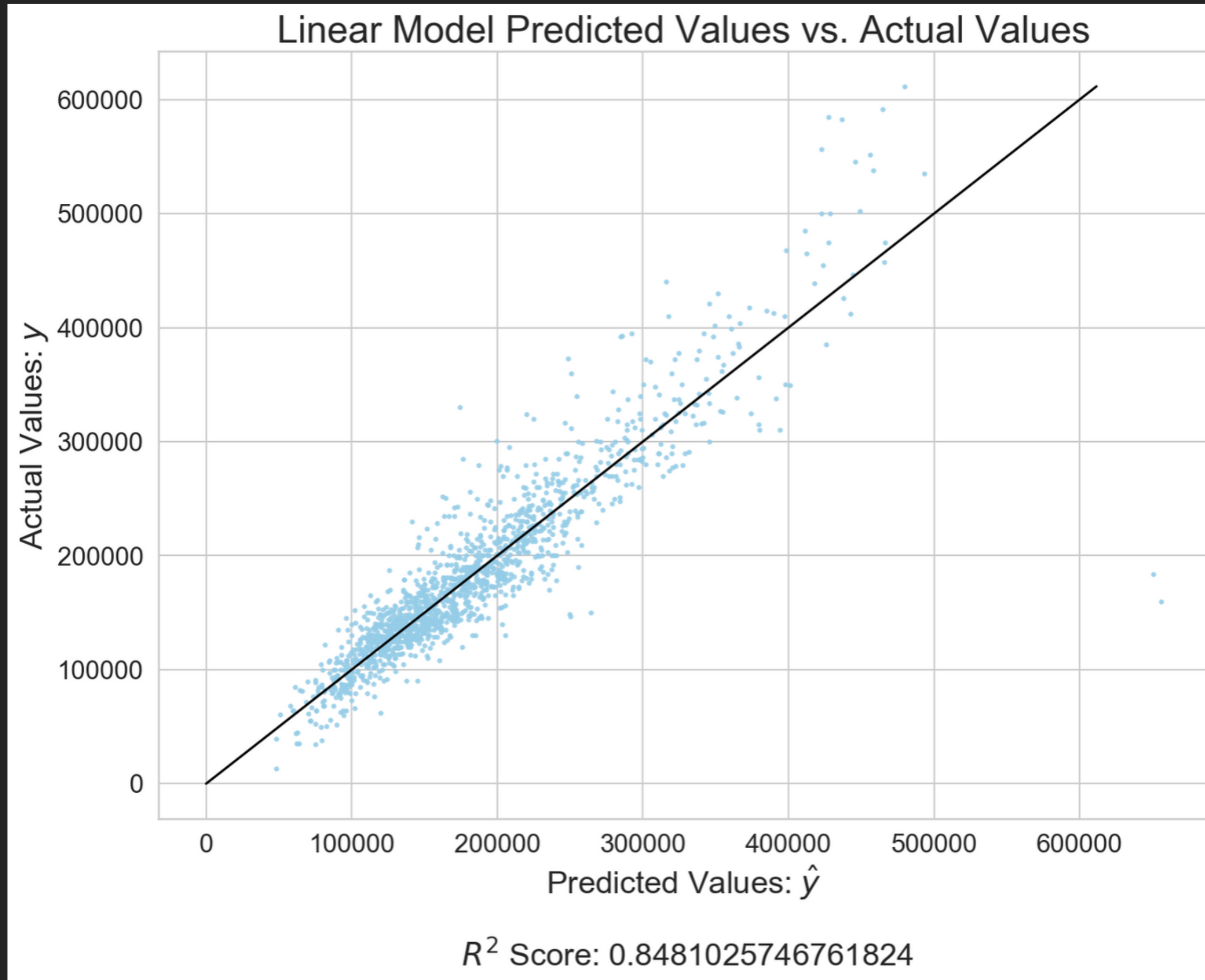
EXTREMELY UNAFFORDABLE

Feature & Sale Price Correlation

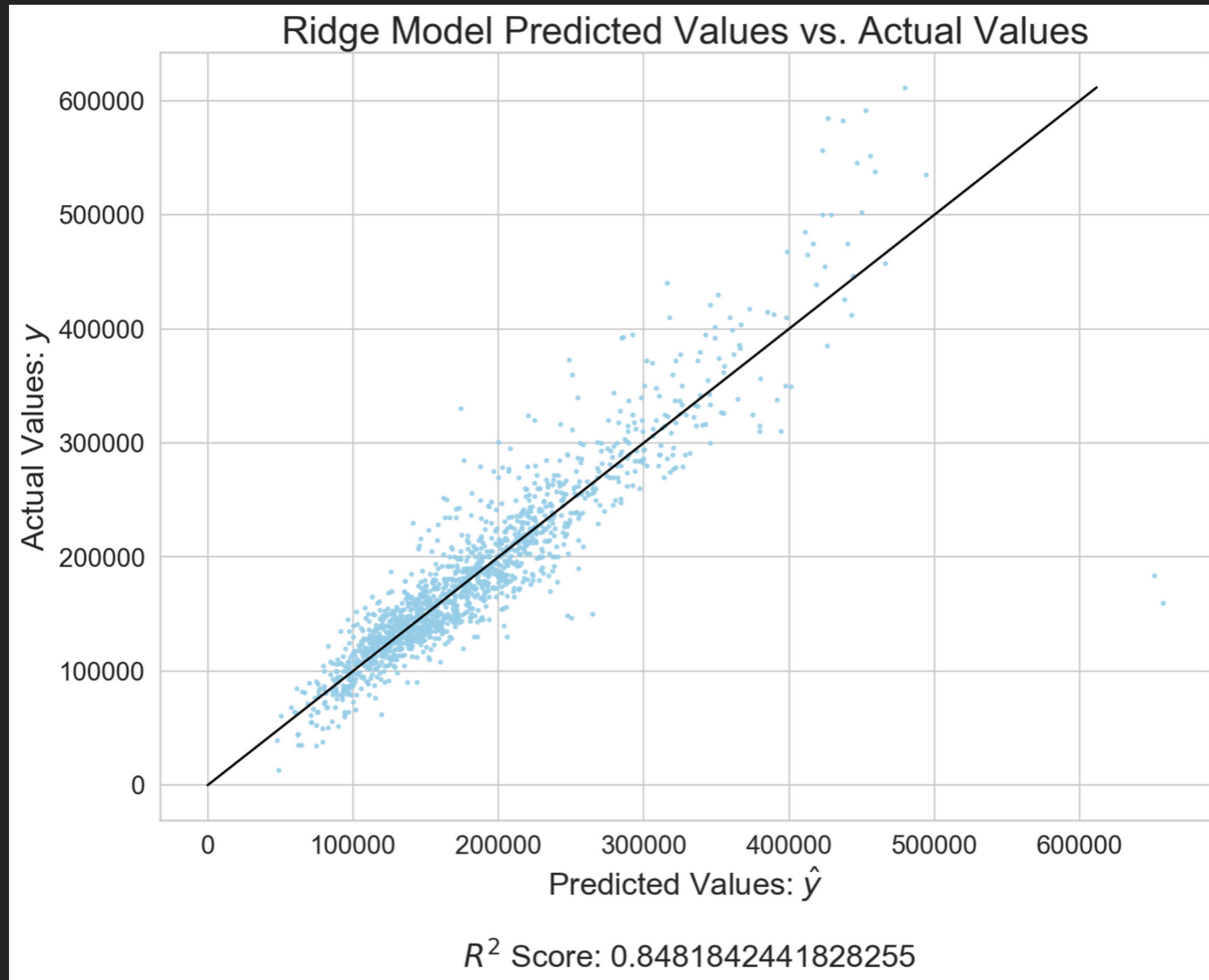


Selected model features and their correlation to sale price.

# Linear Regression Model

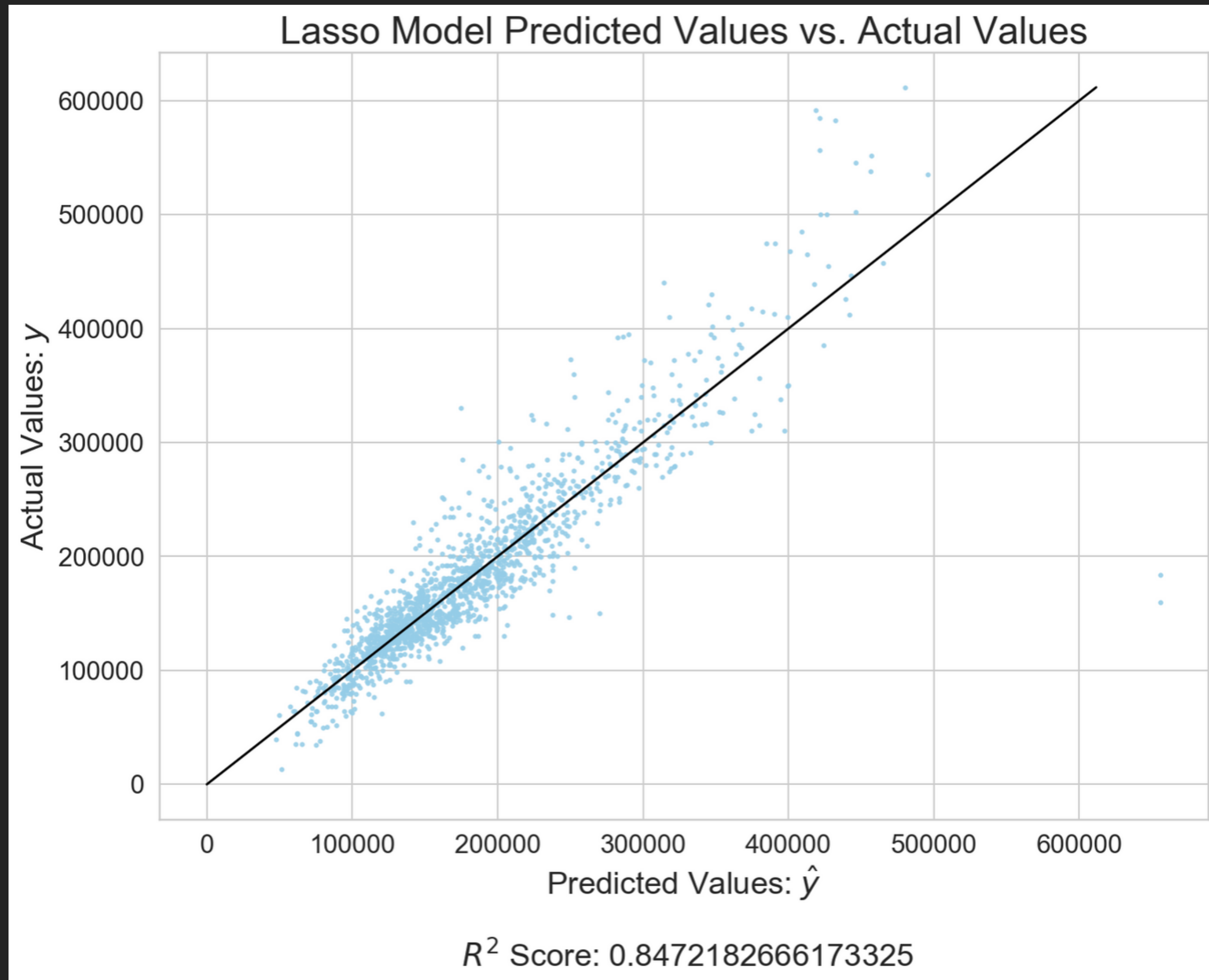


# Ridge Model





# Lasso Model



Based on my Linear Regression, the model can predict the house's price is within ~\$32,000 on average.

**RMSE:** KAGGLE

\$30,116

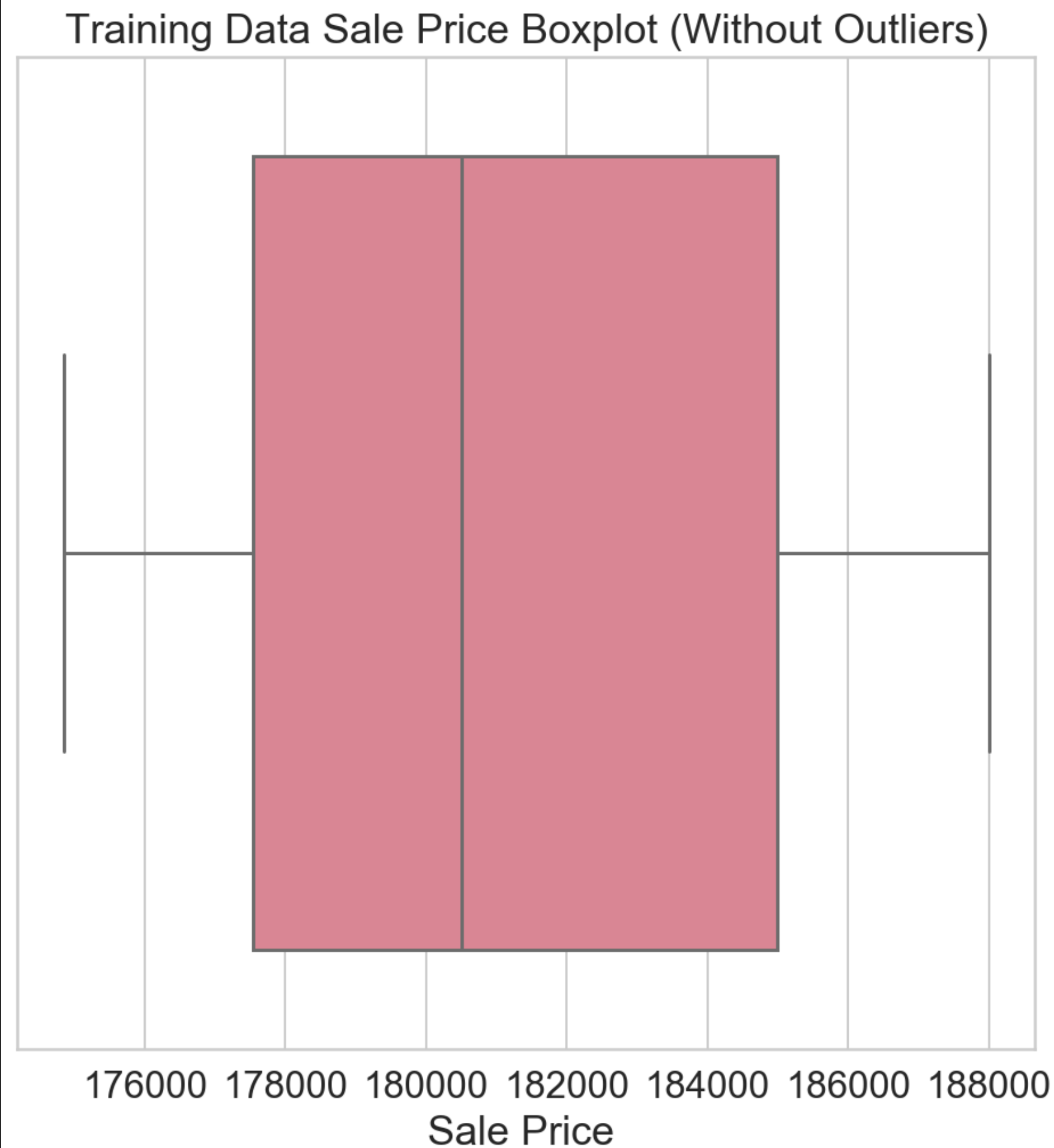
**RMSE:** MODEL

\$32,331

# Ames Sale Price Distribution

- Ames (median): \$180,500
- LA (median): \$717,583
- SF (median): \$1,387,263

Source: <https://www.zillow.com/los-angeles-ca/home-values>  
<https://www.zillow.com/san-francisco-ca/home-values/>



Median: 180500.0  
Mean: 181175.2105263158



Suggestions

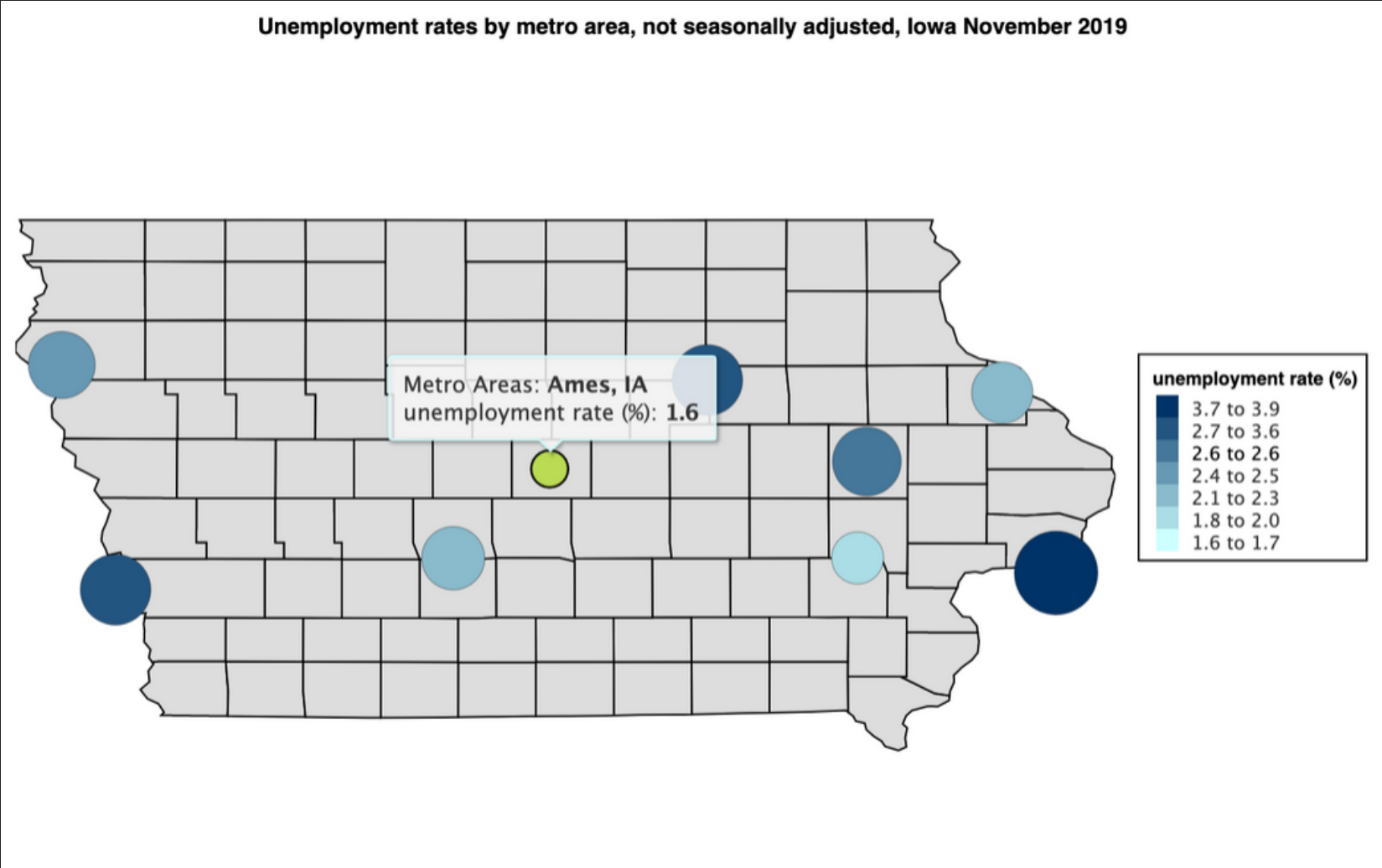
# Other Factors to Analyze: Tech Skills

What is the measure of potential tech talent in residents over the age of 25 that have a bachelor's degree?

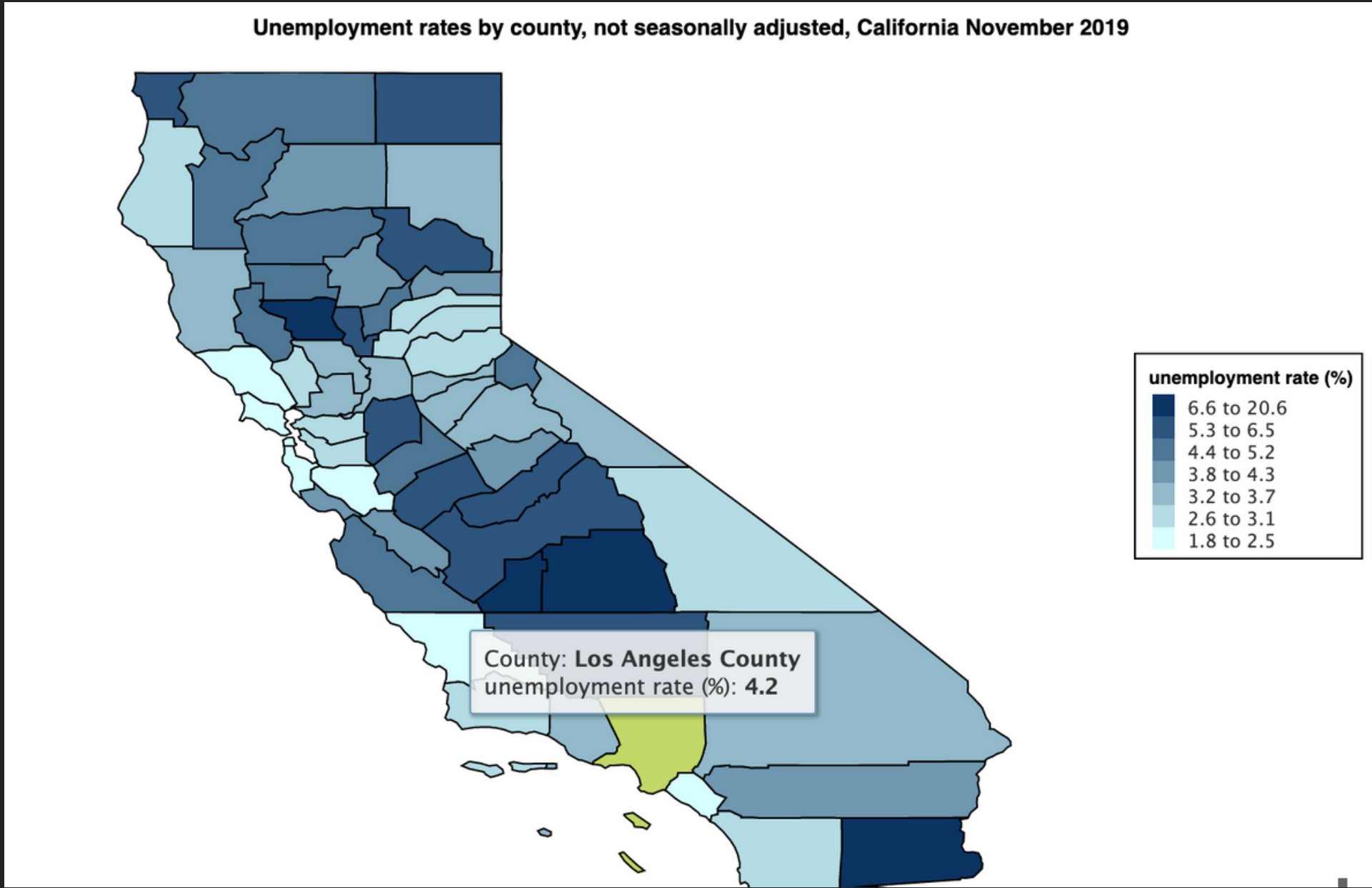
FIELD OF BACHELOR'S DEGREE FOR FIRST MAJOR		
Survey/Program: American Community Survey		Product: 201
TableID: S1502		
	Total	
	Estimate	Margin of Error
▼ Total population 25 year...	26,076	+/-2,025
Science and Engineeri...	10,992	+/-1,640
Science and Engineeri...	2,199	+/-750
Business	3,734	+/-1,030
Education	4,810	+/-991
Arts, Humanities and ...	4,341	+/-847

Source: U.S. Census, American Community Survey

# Other Factors to Analyze: Unemployment Rates



- Ames: 1.6%
- LA: 4.2%



Source: U.S. Bureau of Labor Statistics