

Kings County Housing Prices Analysis

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3/9/2019

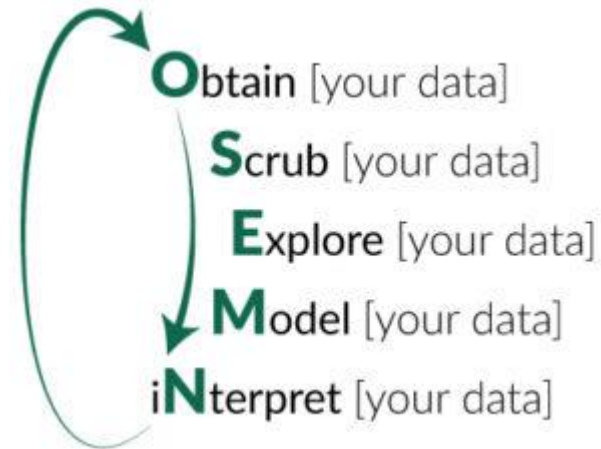
Project Objectives

- Use exploratory data analysis to gain insight into Kings County housing market
- Determine the features of a home that best predict the price the home will sell for in Kings County, WA
- Build a model to predict home prices with these optimal predictors



Overview of Process

- Obtain and clean the data
- Explore data through visualizations
- Build simple regression models
- Refine regression models
- Analyze results



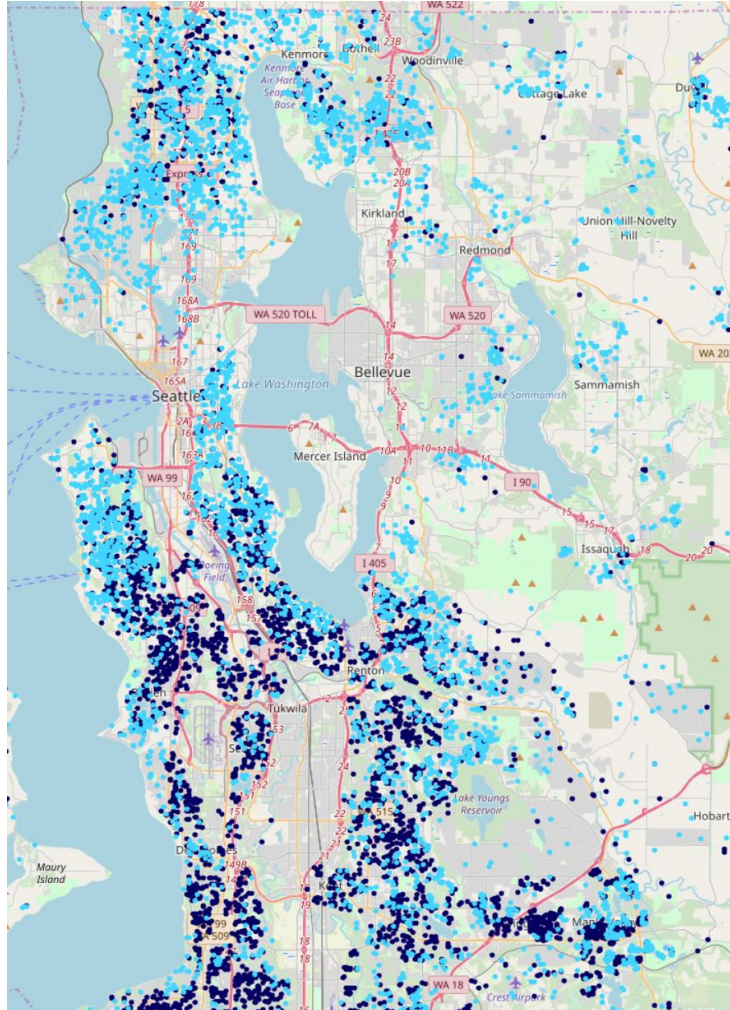
Potential Price Predictors

Column Names and descriptions for Kings County Data Set

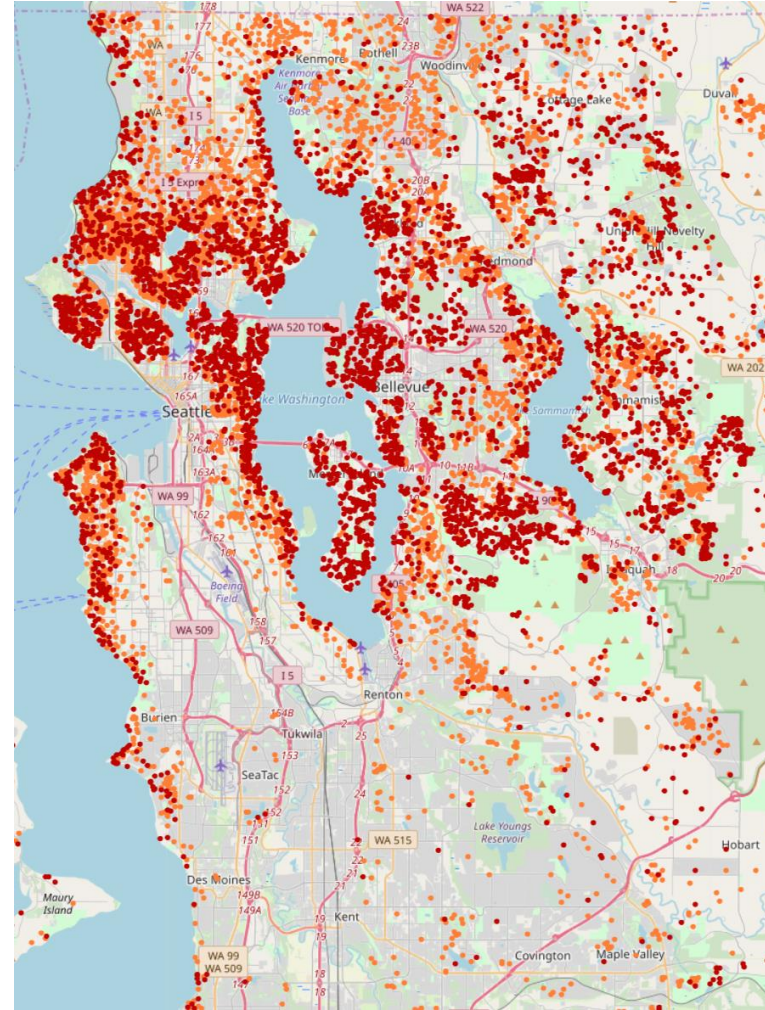
- **id** - unique identified for a house
- **dateDate** - house was sold
- **pricePrice** - is prediction target
- **bedroomsNumber** - of Bedrooms/House
- **bathroomsNumber** - of bathrooms/bedrooms
- **sqft_livingsquare** - footage of the home
- **sqft_lotsquare** - footage of the lot
- **floorsTotal** - floors (levels) in house
- **waterfront** - House which has a view to a waterfront
- **view** - Has been viewed
- **condition** - How good the condition is (Overall)
- **grade** - overall grade given to the housing unit, based on King County grading system
- **sqft_above** - square footage of house apart from basement
- **sqft_basement** - square footage of the basement
- **yr_built** - Built Year
- **yr_renovated** - Year when house was renovated
- **zipcode** - zip
- **lat** - Latitude coordinate
- **long** - Longitude coordinate
- **sqft_living15** - The square footage of interior housing living space for the nearest 15 neighbors
- **sqft_lot15** - The square footage of the land lots of the nearest 15 neighbors

Below Median vs. Above Median

Price < \$450,000



Price > \$450,000



Results of Modeling

- Best Predictors
 - Square footage of the home
 - Grade of the home
- Other Successful Predictors
 - Square footage of lot
 - # of bedrooms
 - # of bathrooms
 - Condition of the home
 - # of Floors



Key Takeaways

- The neighborhood where the house is located will hugely impact the price
 - Unquantifiable by model
- More square footage means a bigger price tag
- R-squared of our model = .588
 - Room for improvement
- More predictors makes for a better model



Questions?