Welcome!

Photo credit:
https://www.racialequityalliance.org/jurisdictions/king-county-washington/

Problem Statement

Real estate listings

What's important to a buyer?

Real estate listings are full of information. How much of this information actually adds value to a home? Which features are most important to buyers? How should we use this information as real estate investors?

Image credit:
https://www.bentleysrealestate.com/

Business Value

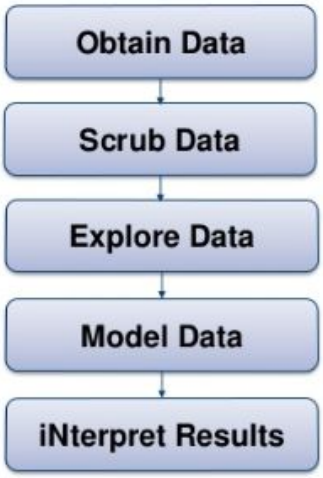
Best features = Higher returns

Maximize investments

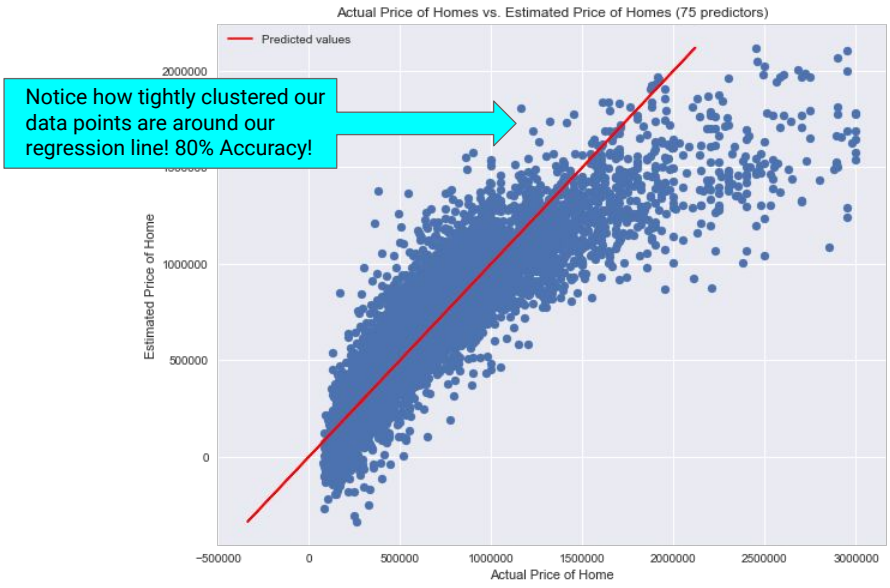
By identifying the features that add the most values to homes we are able to generate higher returns. We can maximize our investments by focusing on homes that have key qualities. The mission of this project is to build a model that will accurately predict sale prices based on common real estate information and break down the impact of each of those qualities on the sale price.

Image credit:
https://www.mckissock.com/blog/real-estate/real-estate-investment/working-with-real-estate-investors-heres-why-they-make-great-clients/

Methodology



Brief overview of the OSEMN process.
Our data consisted of 21,596 records of home sales. Each record contains descriptive features of homes (square footage, number of bedrooms/bathrooms, etc.) and location information (zip code, waterfront property).



Predicting Prices up to $3,000,000

Our model predicts 80% of the variance in our dataset when predicting homes that cost up to $3 million, but is not as useful for more expensive homes.

Business Recommendations

Location is Everything!

Prioritize strong zip codes

Waterfront properties

Zip code was our single strongest feature in predicting sale prices. Just being located in zip code 98039 adds $1.4 million! Homes in zip code 98092 on the other hand have $99,000 subtracted from their value. These are huge swings in price point and we need to be taking advantage! We should be strongly investing in zip codes that have a substantial value, while avoiding at all costs the negative zip codes.
Similarly, homes located on a waterfront add on average $717,000 to their sale value. Again we should be investing in these homes whenever possible.

Future Work

More expensive housing

Smaller areas

More information

While our model is accurate and a great starting point; there is room for improvement. First, we should find a way to reliably predict expensive homes. A higher priced home will generate a higher return.
Next, we should find a way to break zip codes down into smaller chunks. I would recommend looking at records by neighborhoods.
Finally, we should be incorporating more information into our model. In addition to more data points, I would also like access to information about crime rates, school districts, and transportation. There is more to selecting a house than just looking at physical features and the model should reflect that.

Thank you!