



**FOR
SALE**

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Accuracy of Listed Sales Prices



Project Objective

Create a tool that prospective home buyers can use to estimate how over/underpriced a listing is.

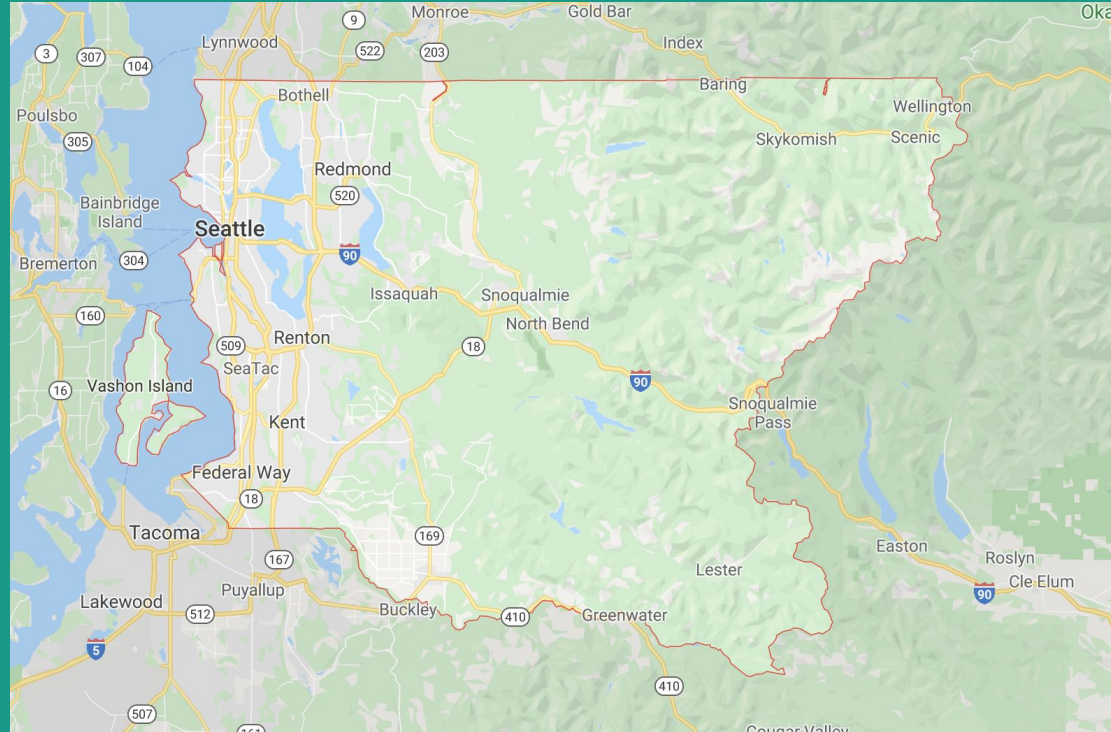
What're We Working With?

21,597 Houses

King County, Washington

Sold in 2014 & 2015

Average Price of \$540,296





Problems to Solve

1

Which variable has the greatest impact on a house's price?

2

Geographical Features?

3

Points of Interest

4

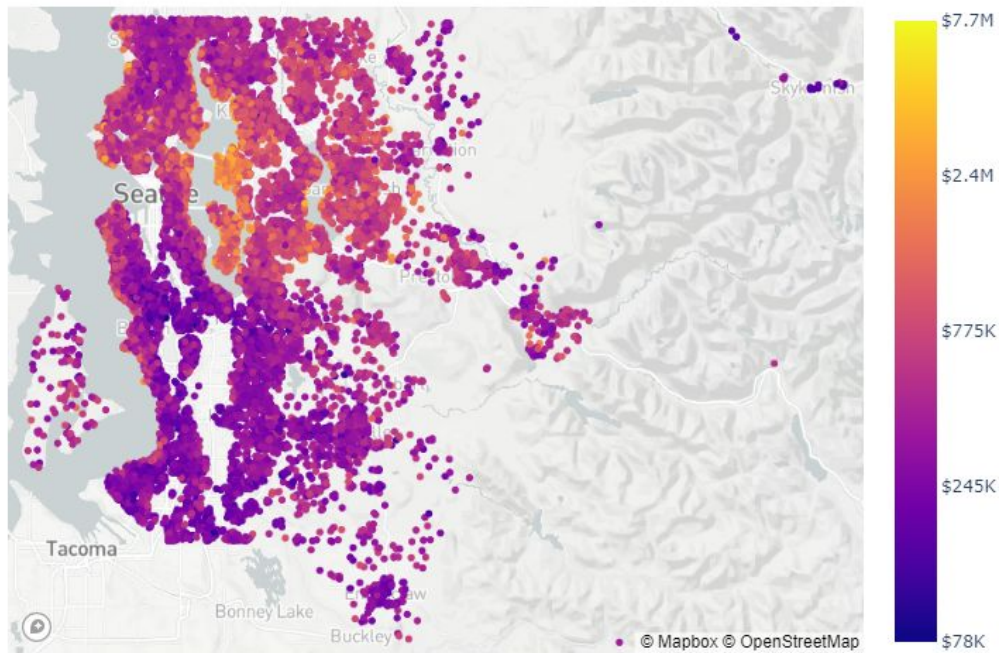
Location

Finding the Most Impactful Variable



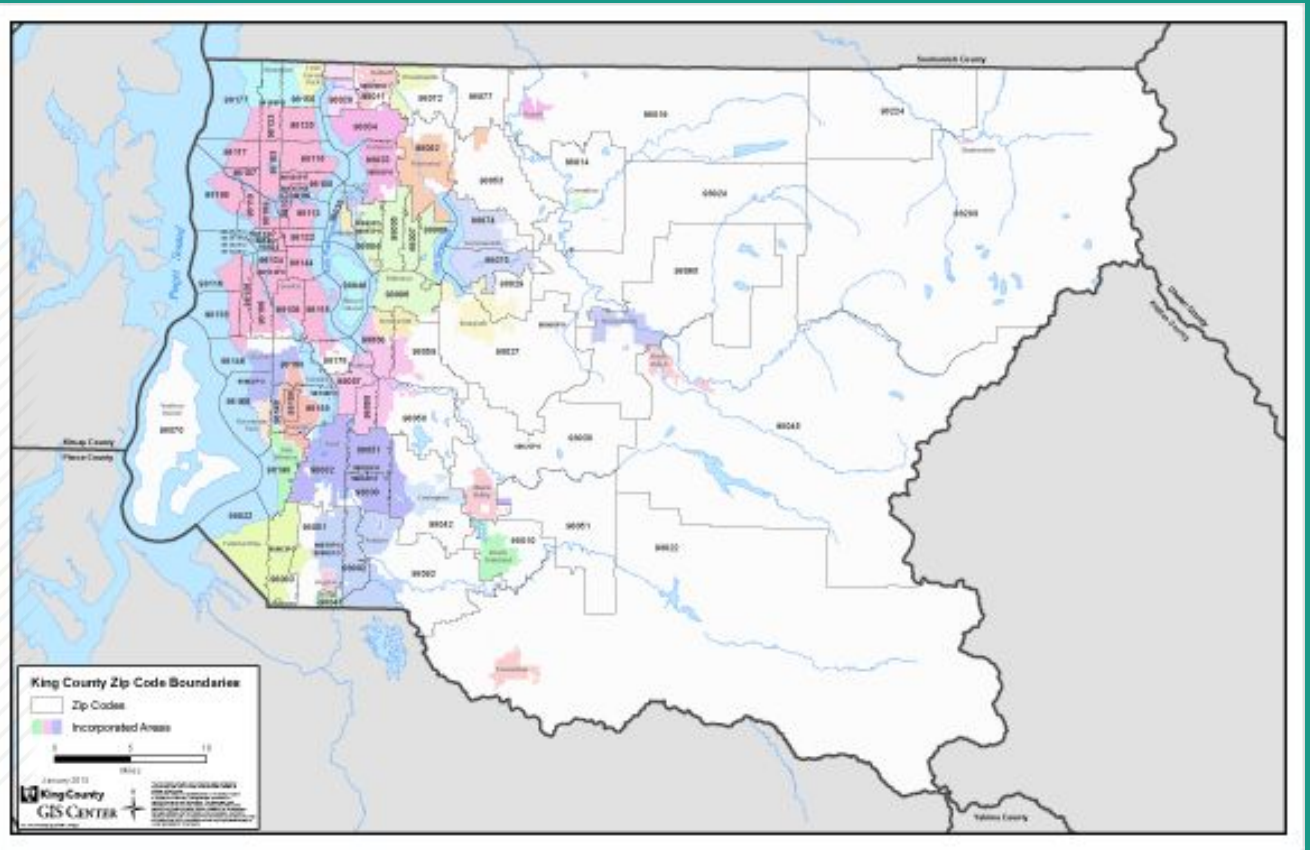
Geographical Features

House sales in King County during May 2014 - May 2015

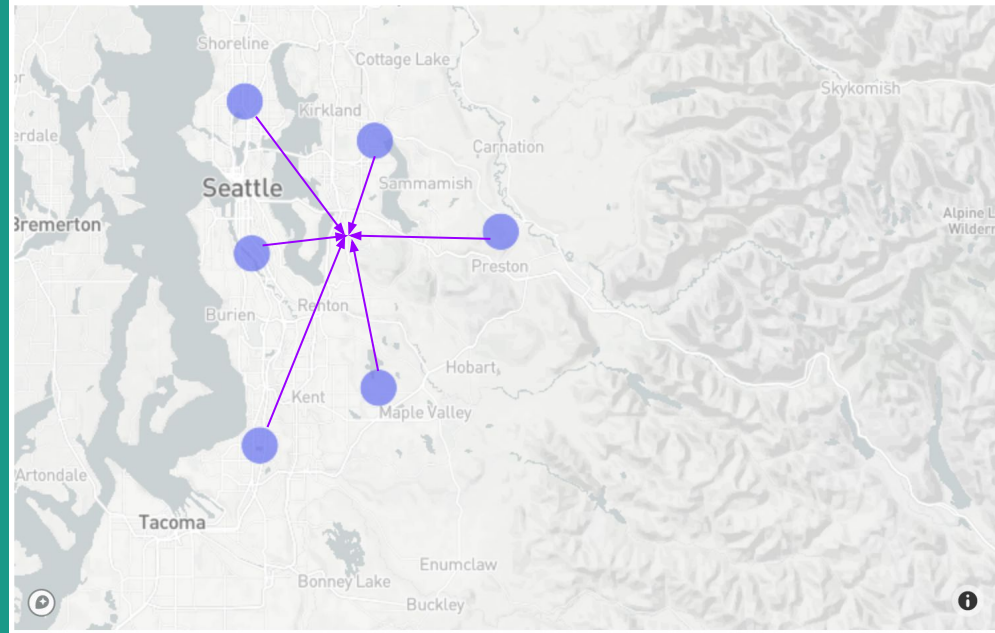
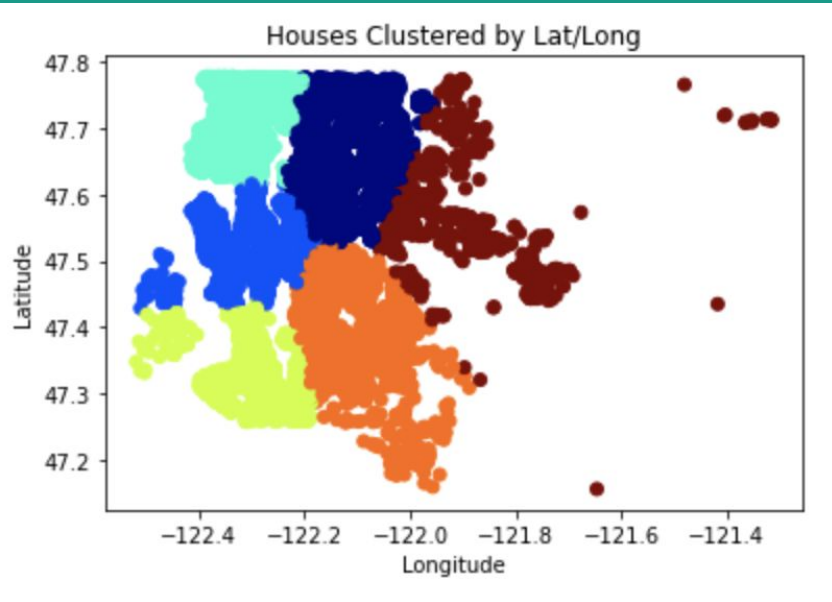


Points of Interest





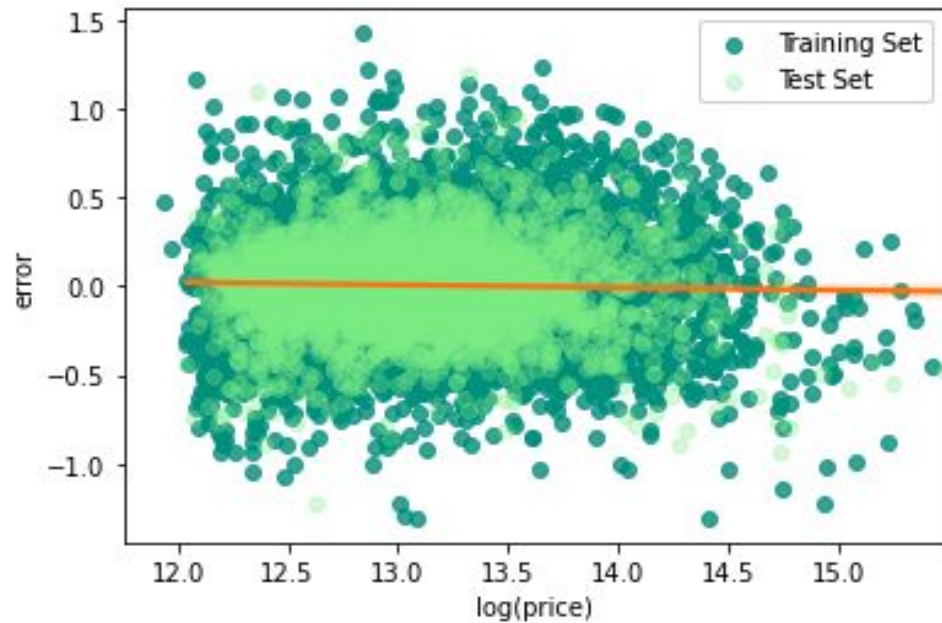
Locational “Points of Interest”



Results

Latitude
Longitude
Square Footage

Estimate Price with 80.02% Accuracy





Limitations

- Only a year's worth of data
- Original listing price and date not included
- Limited information on water proximity

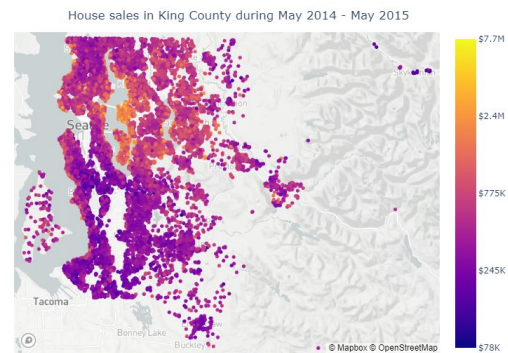
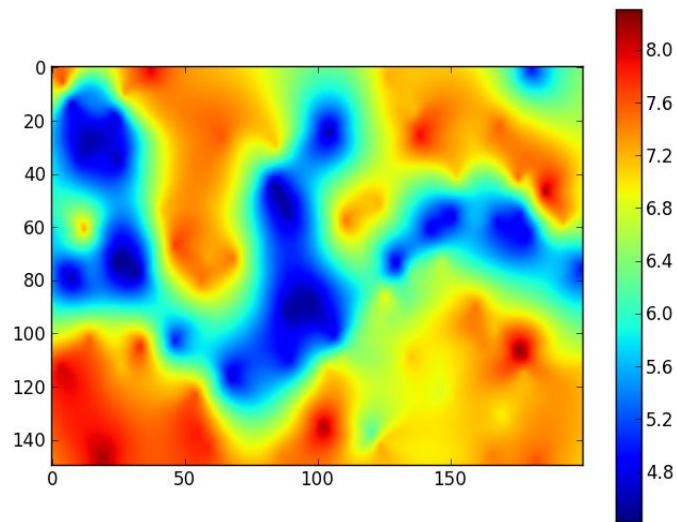


Further Research

Even after removing outliers (our model does not do as well on higher sales prices), our residuals had some skew, a polynomial model may be more appropriate.

We approximated point location with six vectors, but more advanced techniques used in geostatistics, such as “kriging” (example top right) could better define local neighborhoods and their differences.

This dataset only covered one year, but there is likely also some sort of spatiotemporal effect that could be detected with a longer date range.





Thank you.

