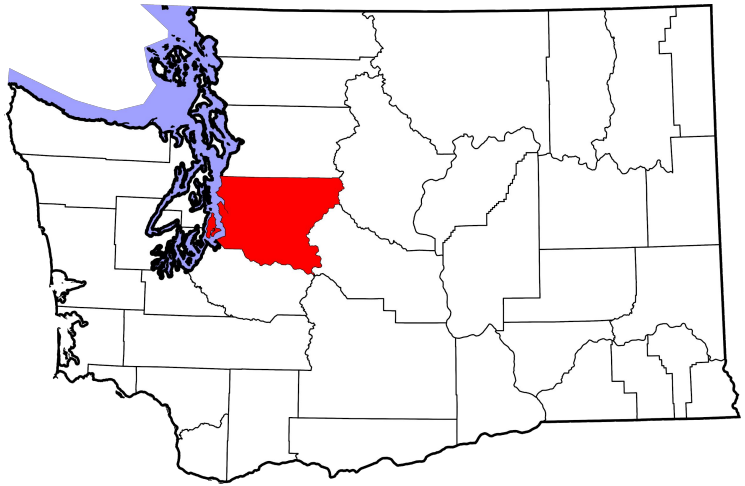
King County Real Estate Pricing

by Susanna Han

Collected Data

- ID
- Date
- Price (dependent)
- Bedrooms
- Bathrooms
- Sqft_living
- Sqft_lot
- Floors
- Sqft_above
- Sqft_basement
- Latitude
- Longitude
- Waterfront
- View
- Condition
- Grade
- Zipcode
- Sqft_living15
- Sqft_lot15



*** important data variables are in orange.

Data Process

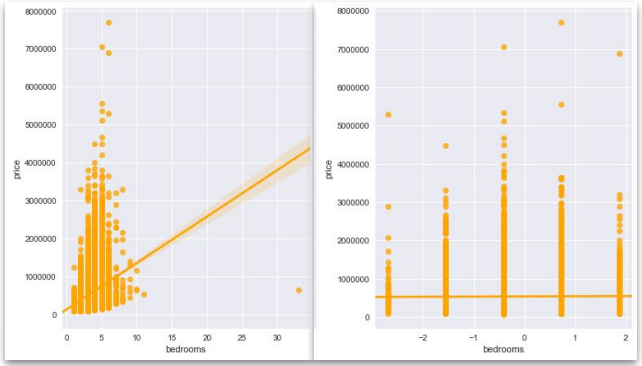
Obtain

Gathering information and sourcing data.

Model

Build and tune model.
Testing algorithms to increase results.

Methodology:
Statistical Analysis
Predictive Model



Scrub/Explore

Process and use visualizations to understand the data.

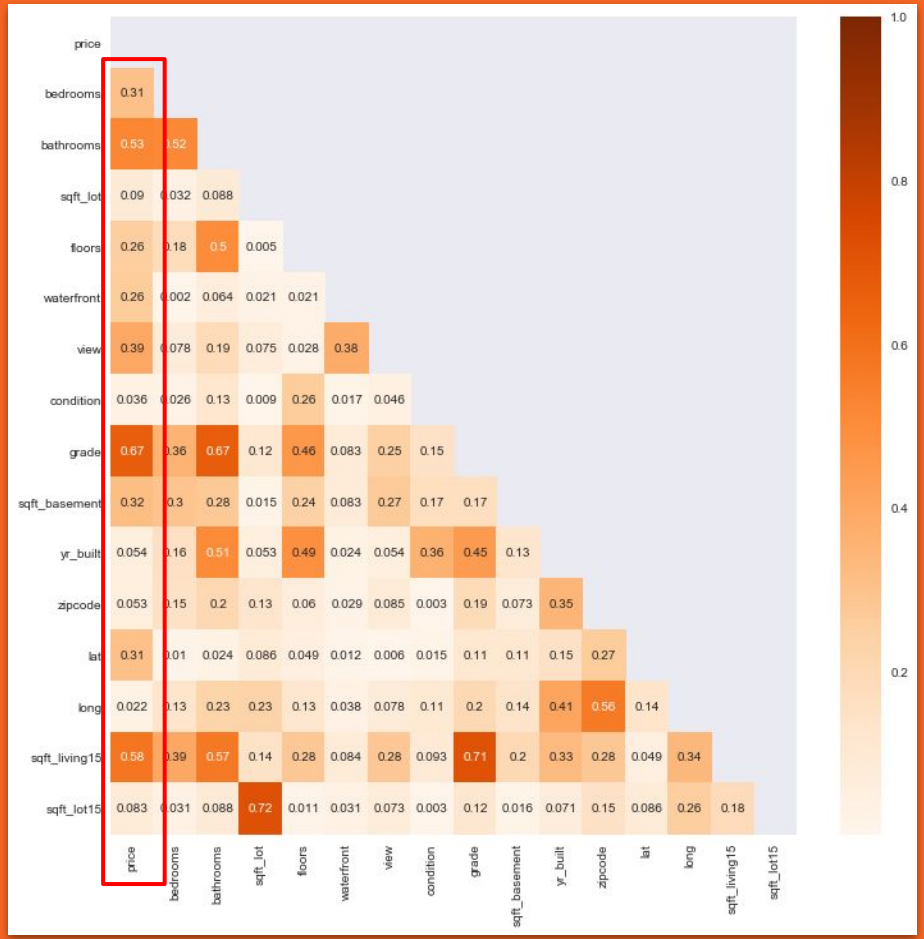
Interpret

Use model to help communicate results on findings.

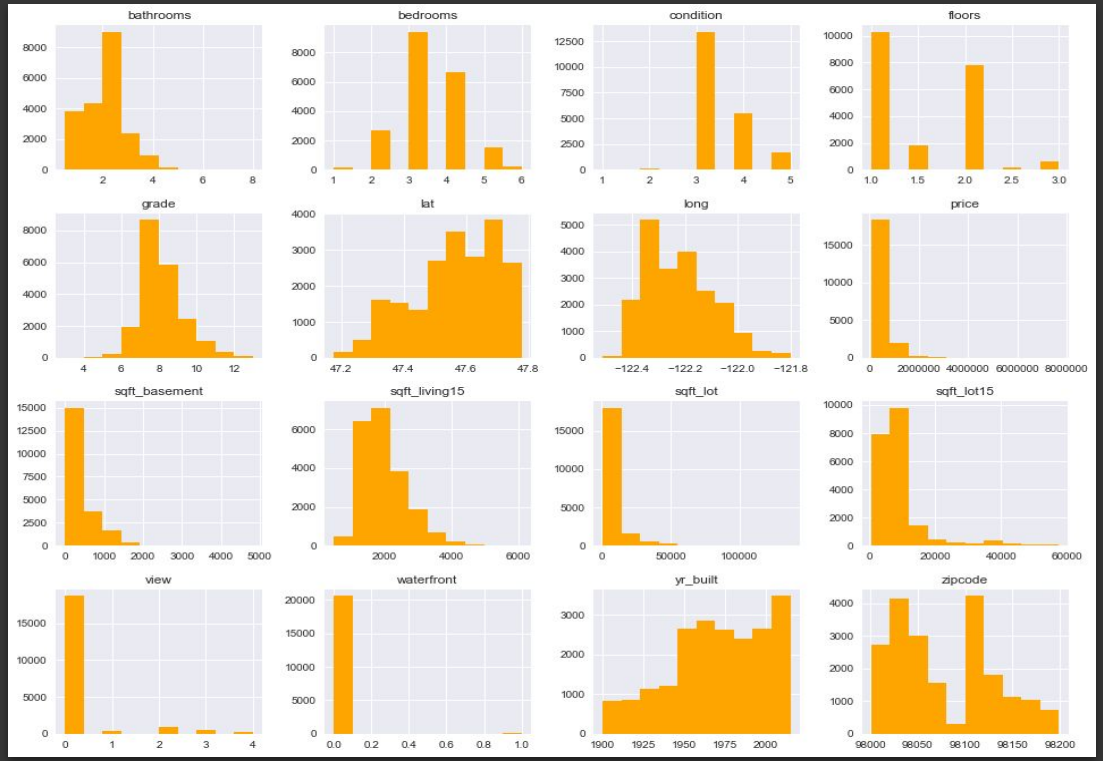
Quality Check

Checked the correlation between every variable to see where the data overlaps.

- ➔ **Darker the Orange**
  Higher the correlation.
- ➔ **Higher the Correlation.**
  The more overlap of the same information.
- ➔ **Overlapping Data**
  Not needed.



Distribution. Histogram.



Check Distribution

Allows us to see where the majority of our data is gathered using histogram for each variable affecting the price of the home.

Quality Check

Finding data that does not fit the majority of the dataset can affect the algorithms in the model. So it is important to recognize and remove the data from the dataset,

- **Before**
  Graphs that show unfit data.
- **After**
  Removed data.

The model built found a correlation between the different variables affecting price.

With a 79% accuracy to predict the increase of a home in King county.

ie.

79% of the different variables related to the price is correlated to the increase or decrease of the price of a home.

VARIABLES in MODEL

- Bedrooms
- Bathrooms
- Sqft_lot
- Floors
- Zipcode
- Grade
- Waterfront
- sqft_basement

Things to consider before buying a home in King County for good market value.

The LOCATION within the county as well as a WATERFRONT view of the home adds to the overall value.

Recommendations

ADD MORE BATHROOMS

$69,170,000 increase/bathroom

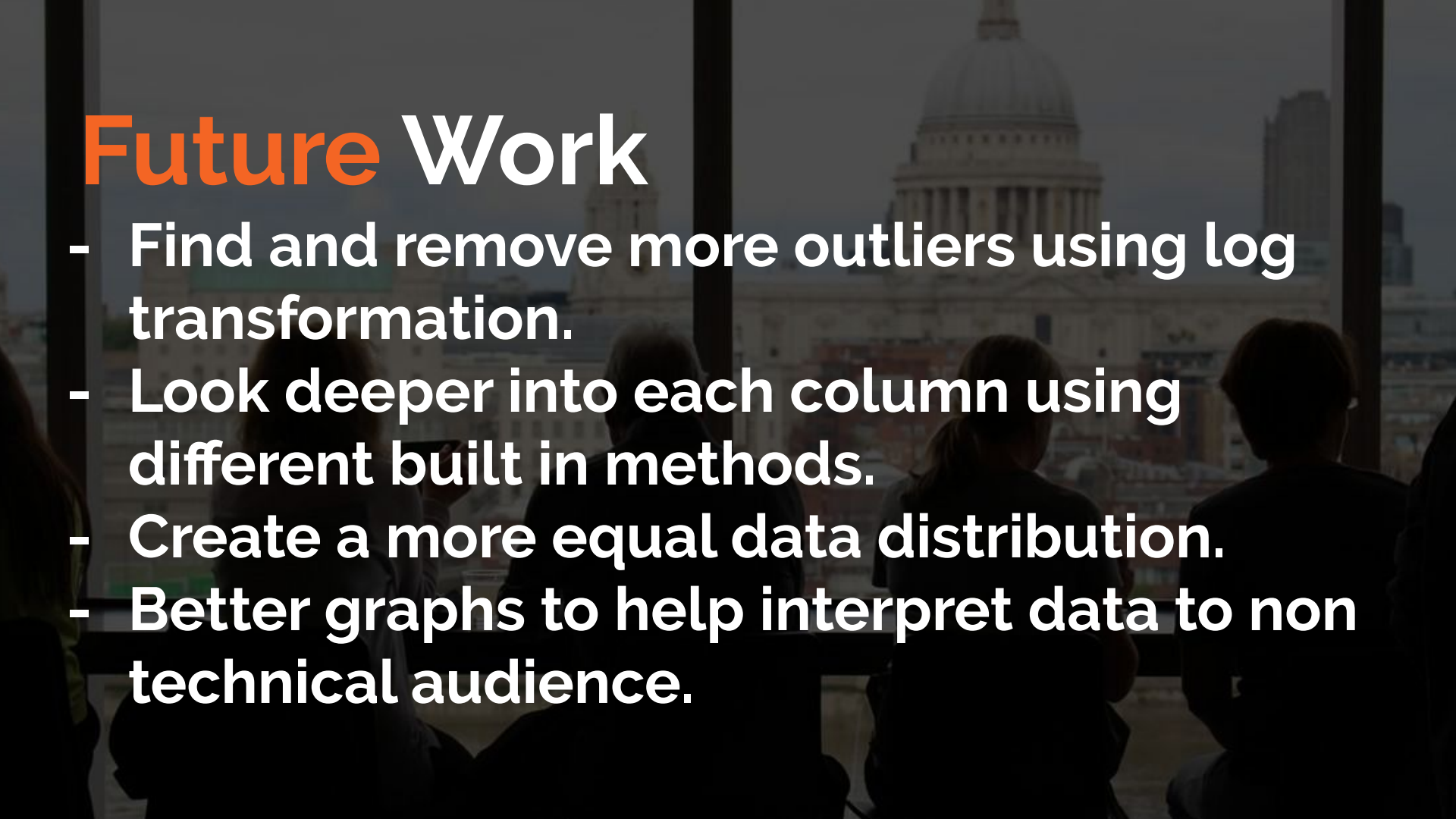
ADD MORE BEDROOMS

$25,920,000 increase/bedroom

USE HIGH QUALITY GRADE MATERIALS

Higher quality, higher investment return

Top three upgrades to increase the price of your home.



Future Work

- Find and remove more outliers using log transformation.
- Look deeper into each column using different built in methods.
- Create a more equal data distribution.
- Better graphs to help interpret data to non technical audience.

Thank You!