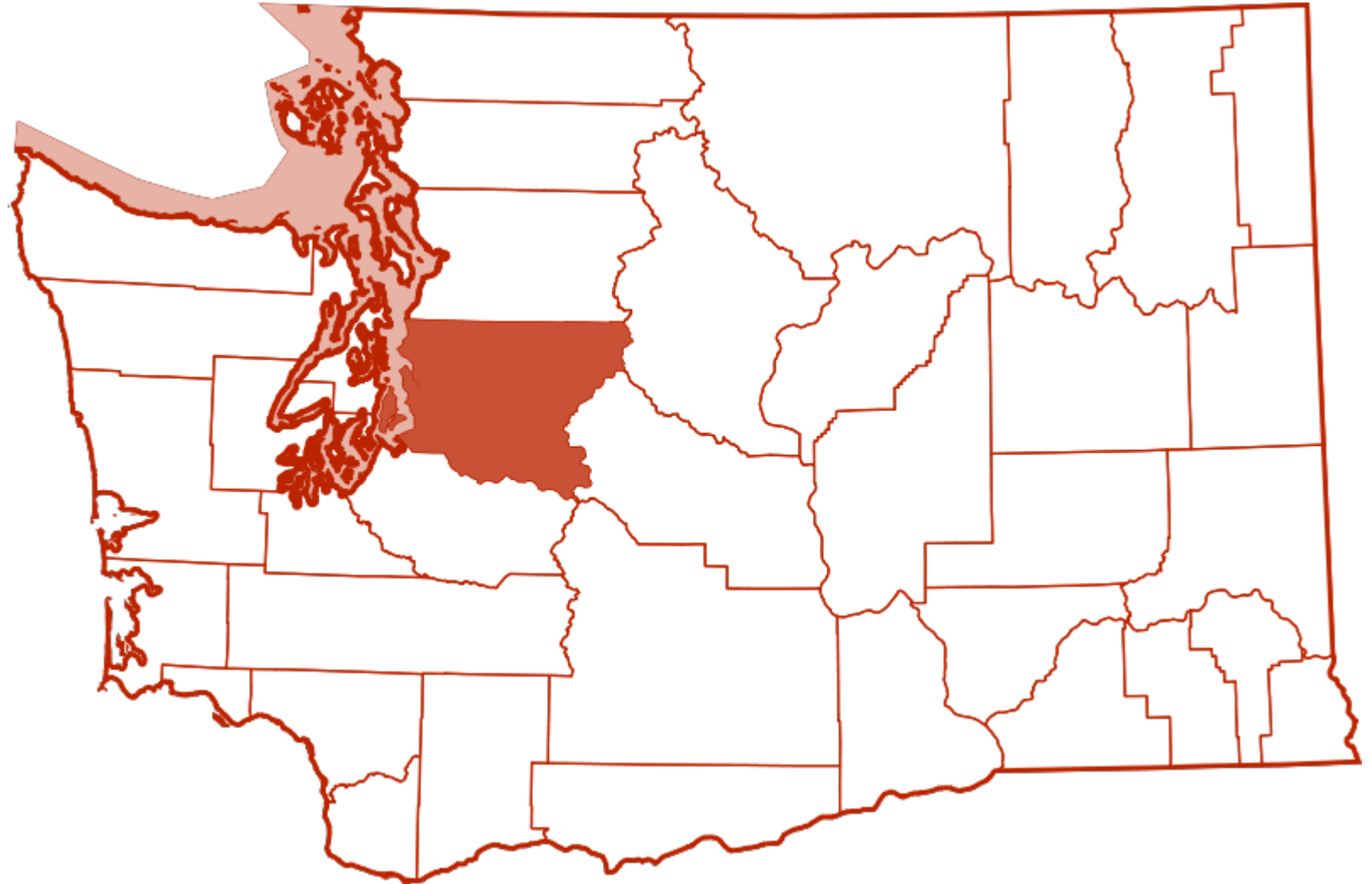


KING COUNTY, WASHINGTON: HOUSING MARKET

CATHERINE FRITZ



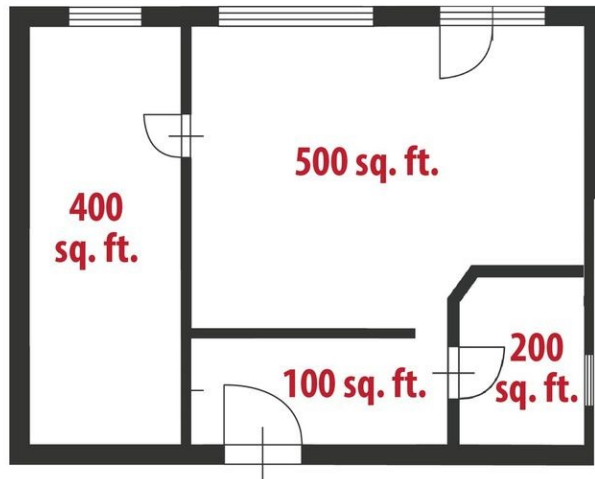
BUSINESS UNDERSTANDING

- Between 2014 and 2019, Seattle had the third highest annualized growth rate among U.S. cities with more than 250,000 residents.
- In 2019, King County recorded the fourth-highest employment growth among all U.S. counties.
- Help workers new or moving to Seattle area to understand what are the major influences on housing prices



DATA UNDERSTANDING: PROPERTY FEATURES

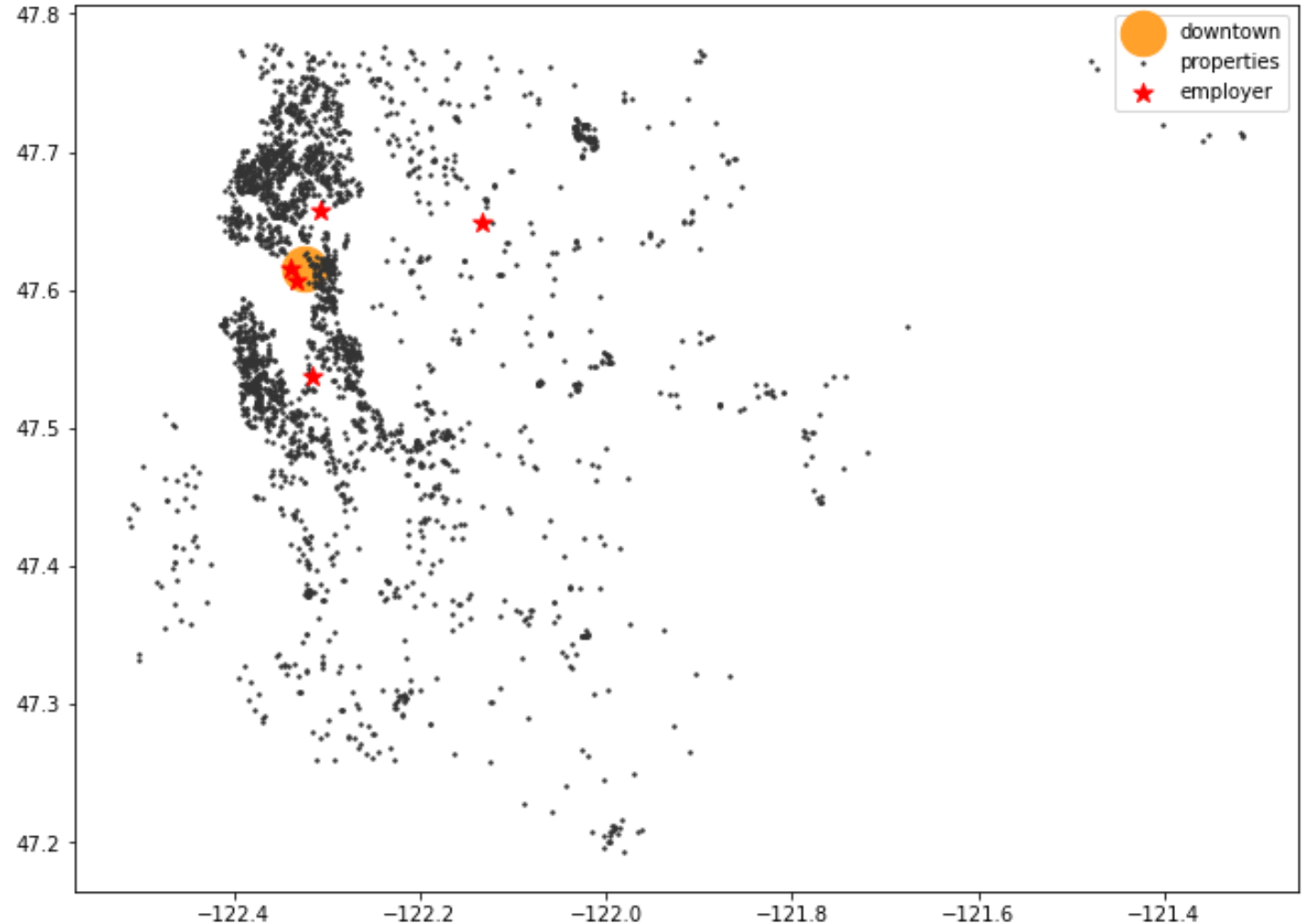
- The King County House Sales dataset provided information on the following features for each house.



- Date - date the house was sold
- Price - price as sold on prior date
- No. of bedrooms
- No. of bedrooms
- Square footage of the home
- Square footage of the lot
- No. of floors
- If the house has a view to a waterfront
- If the house been viewed
- How good the condition is (Overall)
- Overall grade given to the housing unit, based on King County grading system
- Square footage of house apart from basement
- Square footage of the basement
- Year house was build
- Year when house was renovated (if renovated)
- Zip code
- Latitude coordinate
- Longitude coordinate
- The square footage of interior housing living space for the nearest 15 neighbors
- The square footage of the land lots of the nearest 15 neighbors

DATA PREPARATION: LOCATION

- Calculated for each property:
 - Average distance to top 5 employers
 - Distance of each house to the central downtown area
- Distance to downtown similar to averages distance to employer

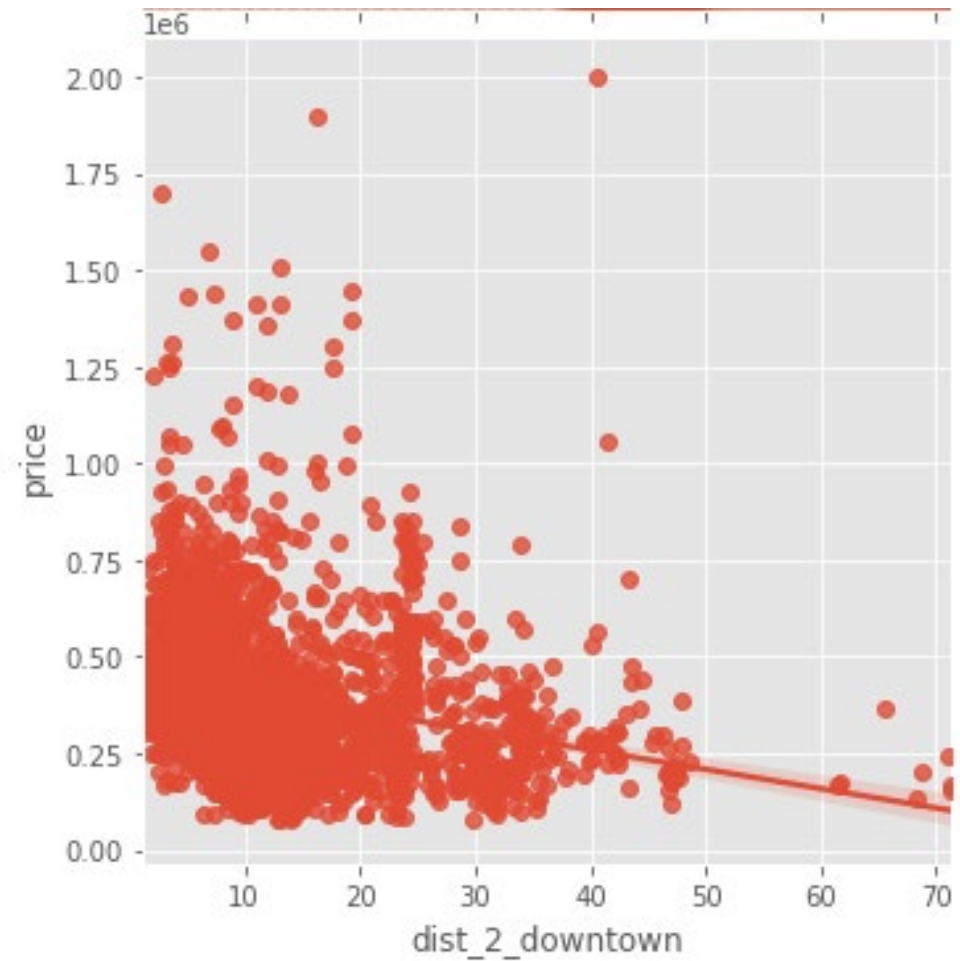
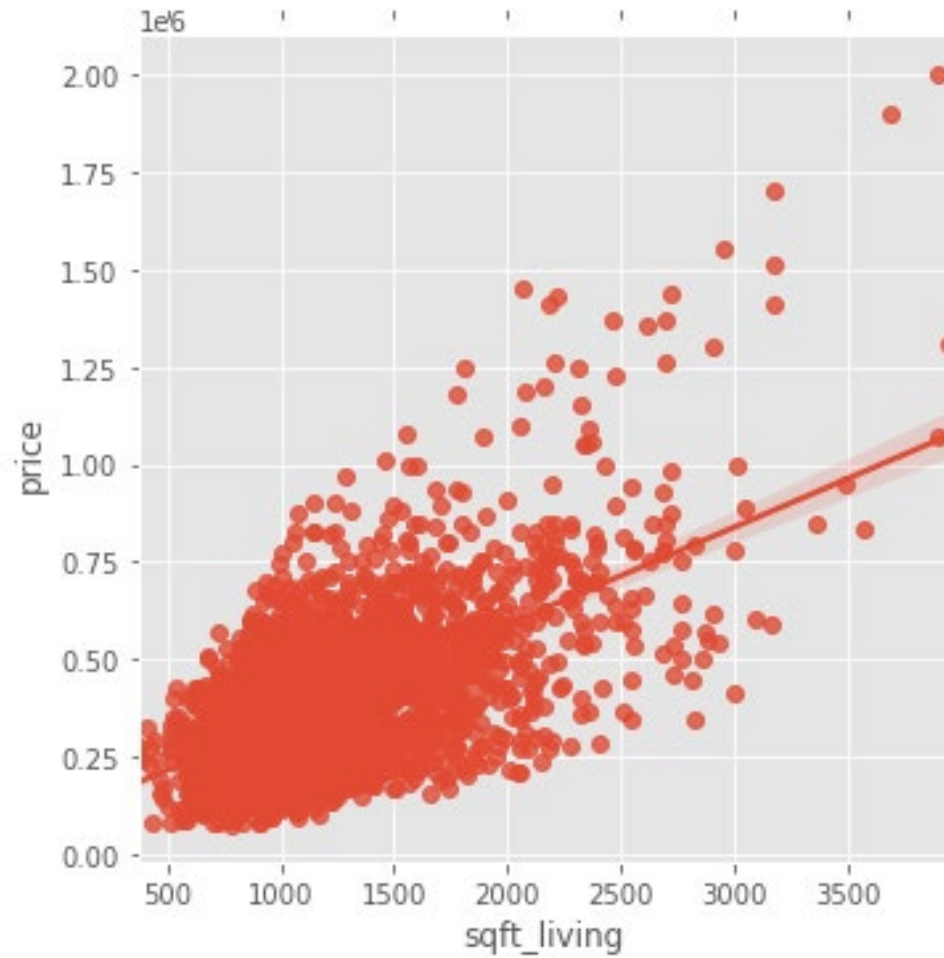


MODELING

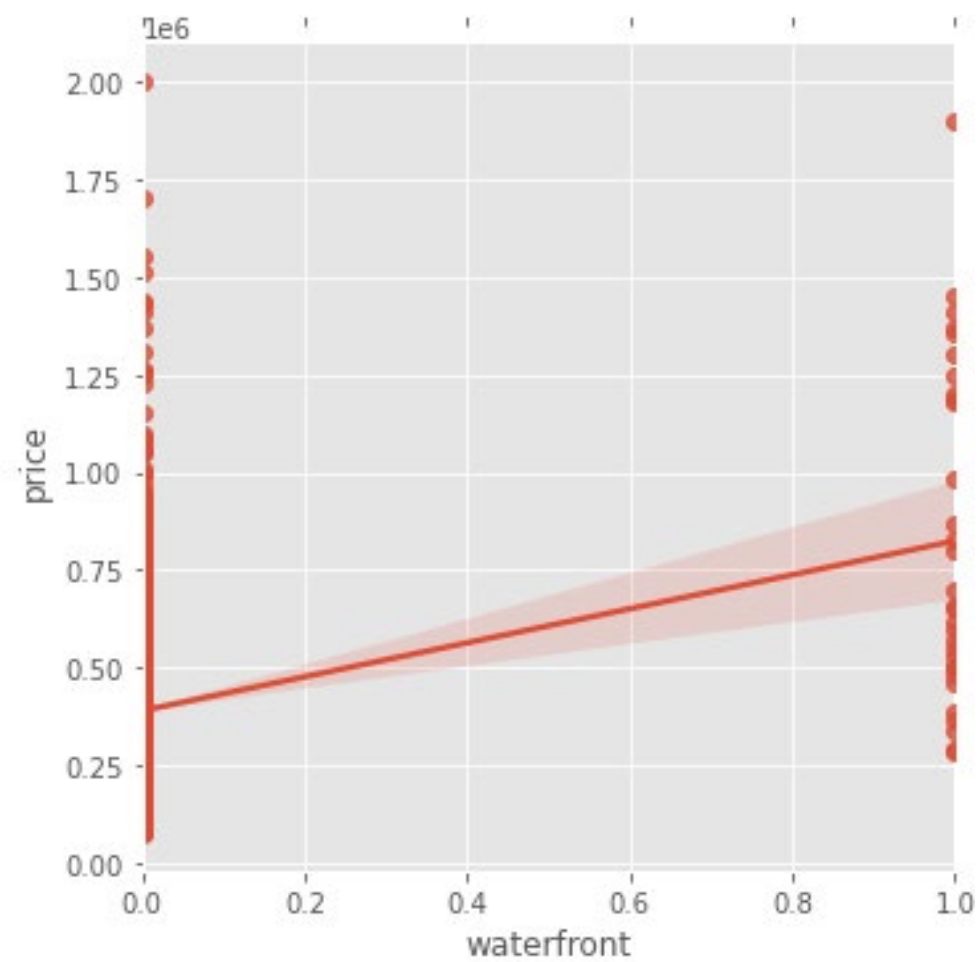
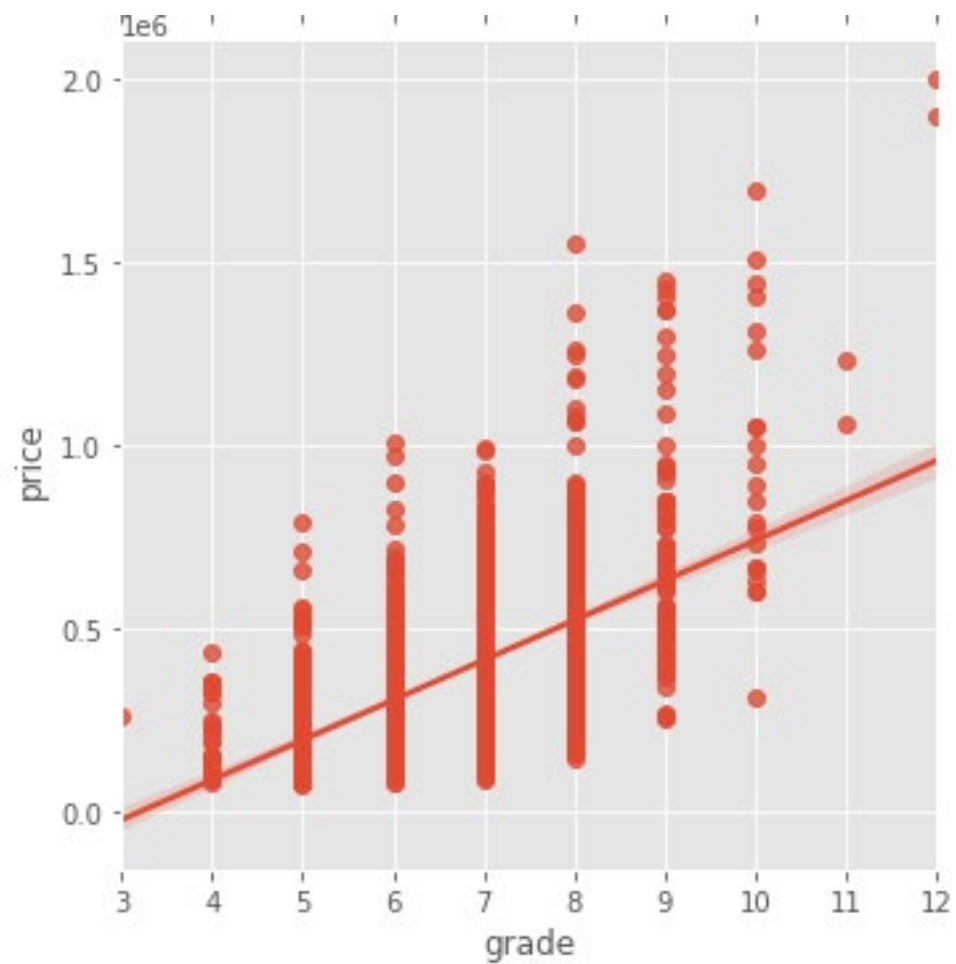


- Method: multivariate linear regression
- Assumptions:
 - Prices less than \$2 million
 - 2 bedrooms or less
- Features used:
 - Square footage of the home
 - Overall grade given to the housing unit, based on King County grading system
 - Distance to downtown
 - If the house has a view to a waterfront

EVALUATION

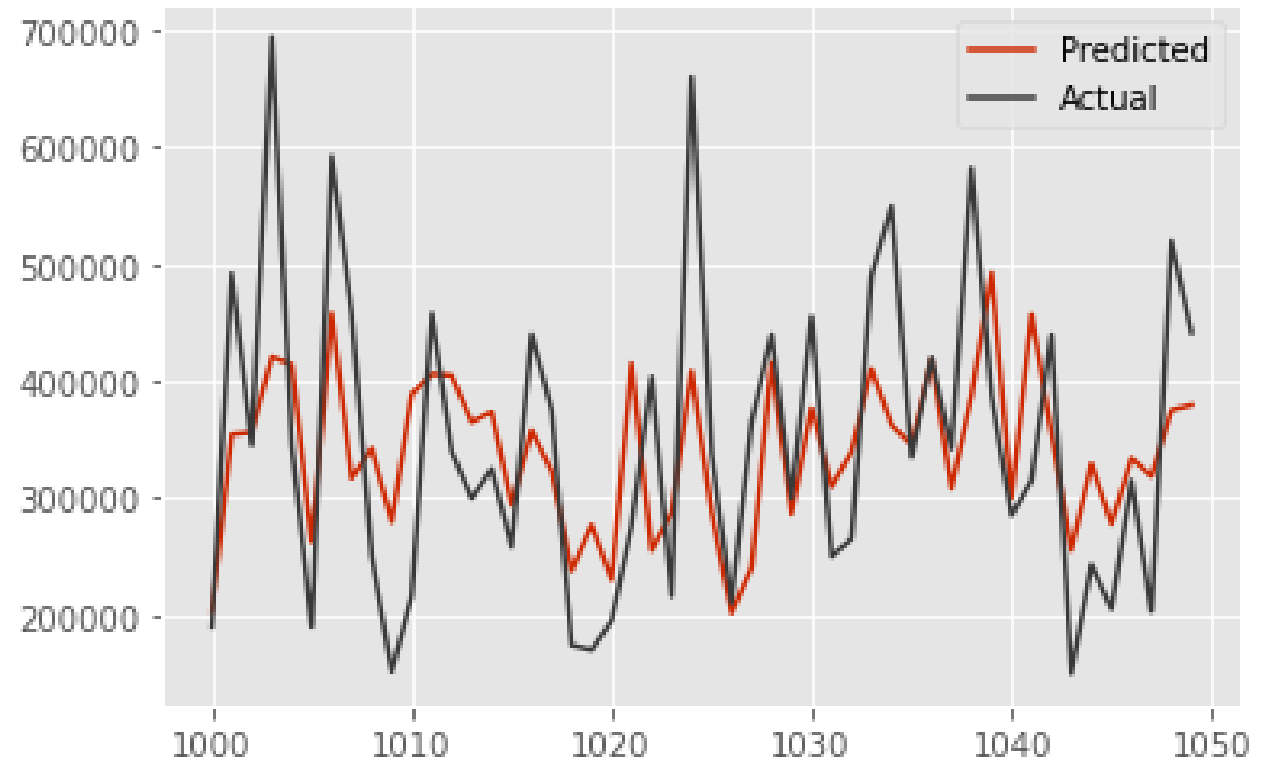


EVALUATION



CONCLUSION

- Can approximate prices based on features
- Price increases:
 - Larger living space
 - Closer to downtown
 - Nicer house
 - Has a waterfront



FUTURE WORK



- Look at proximity to public transportation
- Provide spectrum to waterfront feature based on distance from waterfront
- Look at properties outside of assumption



THANK YOU

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ADDITIONAL INFORMATION CAN BE FOUND AT
[HTTPS://GITHUB.COM/CMFRITZ/DSC-PHASE-2-PROJECT](https://github.com/cmfritz/dsc-phase-2-project)