
KING COUNTY REAL ESTATE ANALYSIS

NAGIB
GONZALEZ



overview

- Nimble Home Buyers wants to expand to Washington
 - Analysis of factors impacting home prices
 - Provide recommendations for maximizing returns.
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PROBLEM

- identify the most profitable properties for investment
 - Find features with the greatest impact on price
 - renovation and new construction
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data

- King County, Washington home sales information
 - 21,380 homes
 - Dates starting from May 2014- April 2015
 - 22 features
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MODELING

- We used a linear regression model
 - The goal is to find the line of best fit
 - predict price using other features
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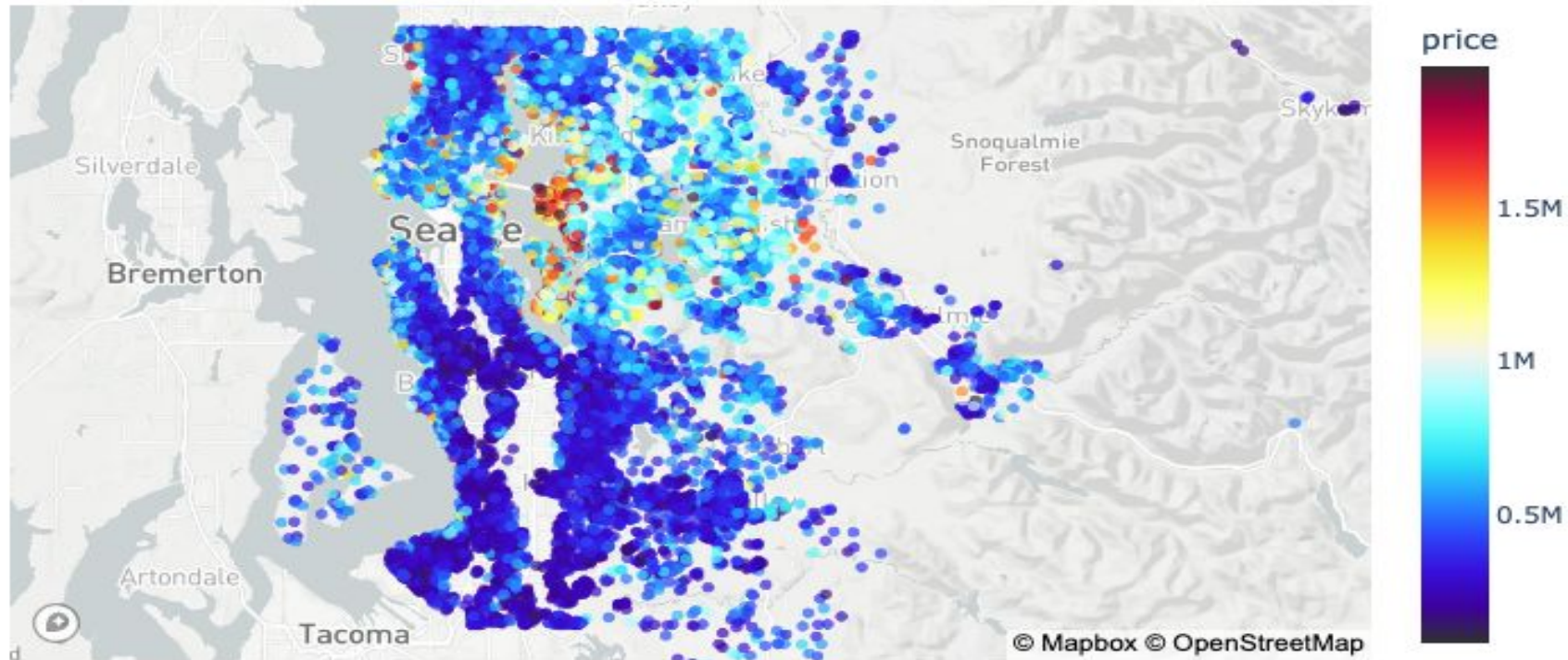
Performance

- 83.9% of home price variance explained.
 - Most significant coefficients: grade, waterfront, view, condition, sqft_living.
 - Large coefficients indicate strong positive relationships.
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some observations

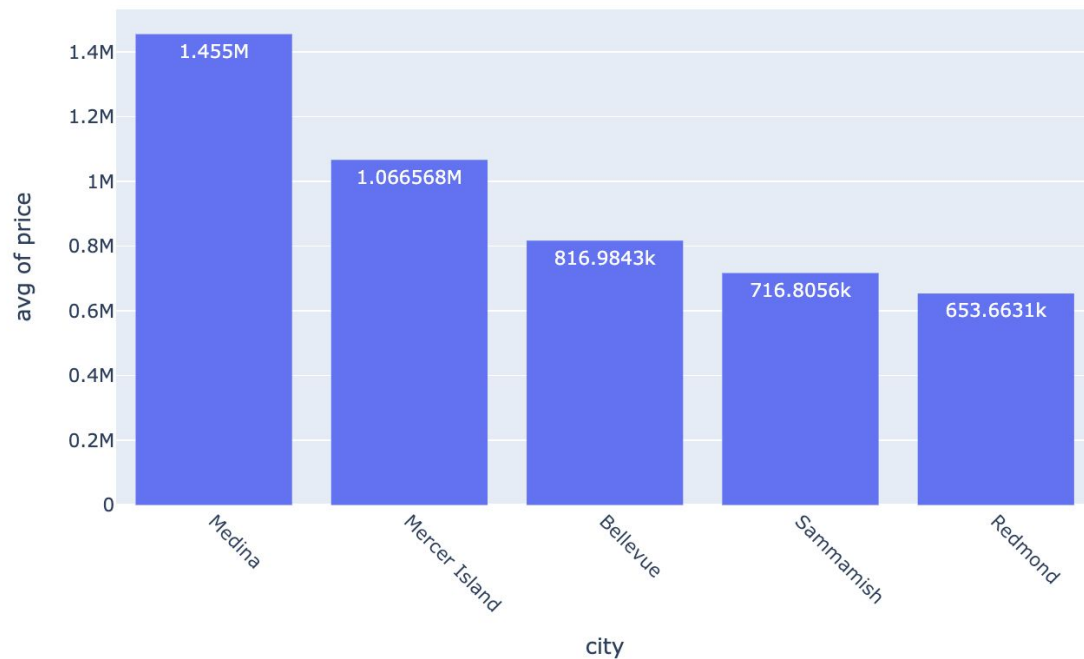
- 1 unit grade increase adds \$55,000 in value.
 - 1 sqft living space increases price by \$62.00
 - Waterfront properties worth \$500,000 more.
 - Positive impact of \$26,000 for better condition.
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Home Prices Across King County



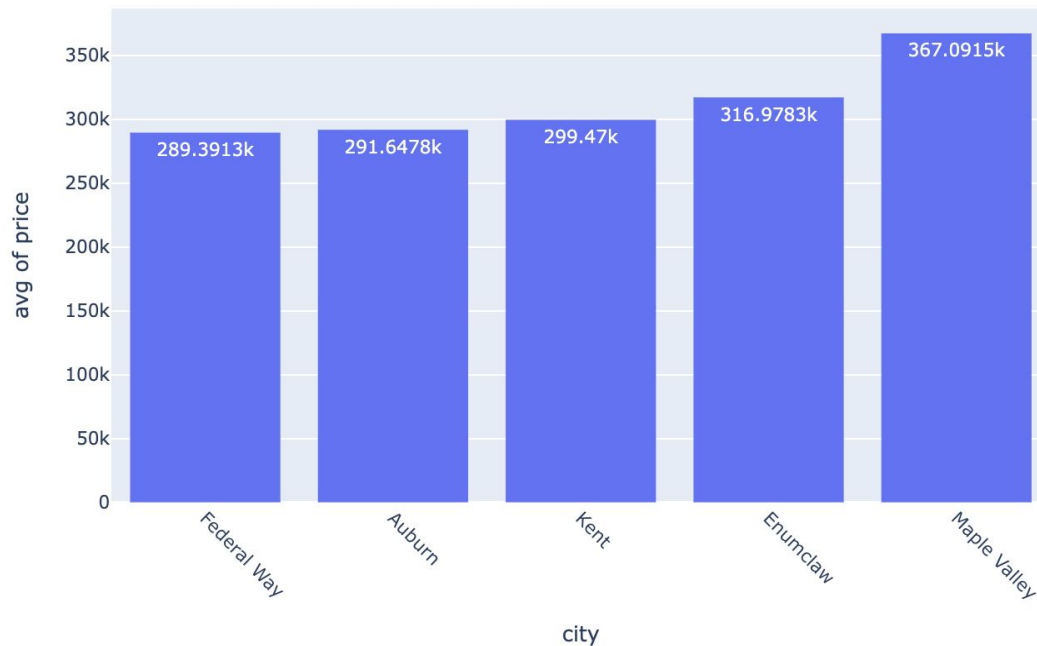
Feature EXPLoration

Most Expensive Homes Per City



Feature EXPLoration

Least Expensive Homes Per City



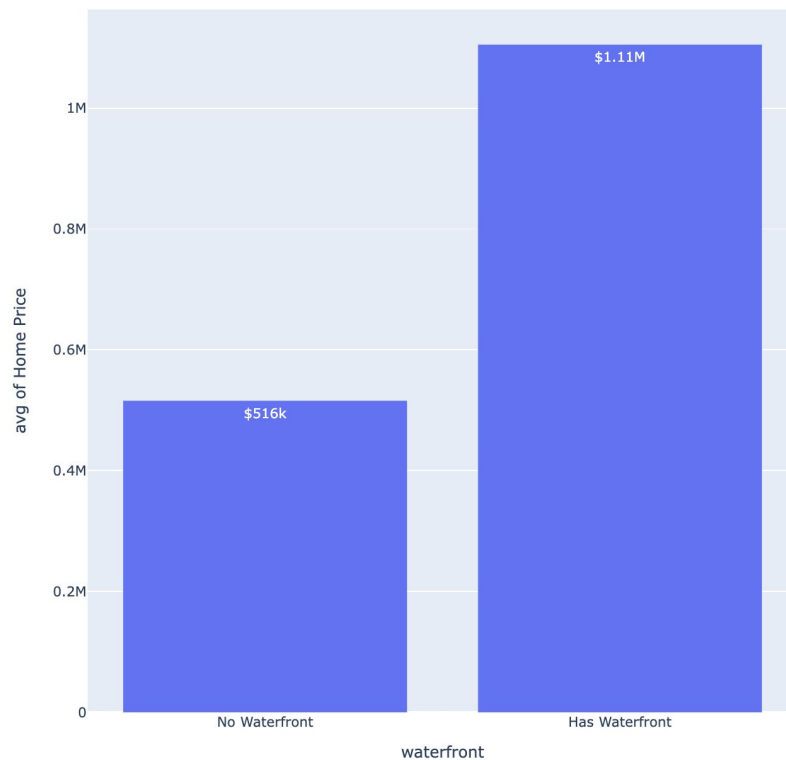
Feature EXPLoration

Home Sale Price vs. Grade



Feature EXPLORation

Home Sale Price vs. Waterfront

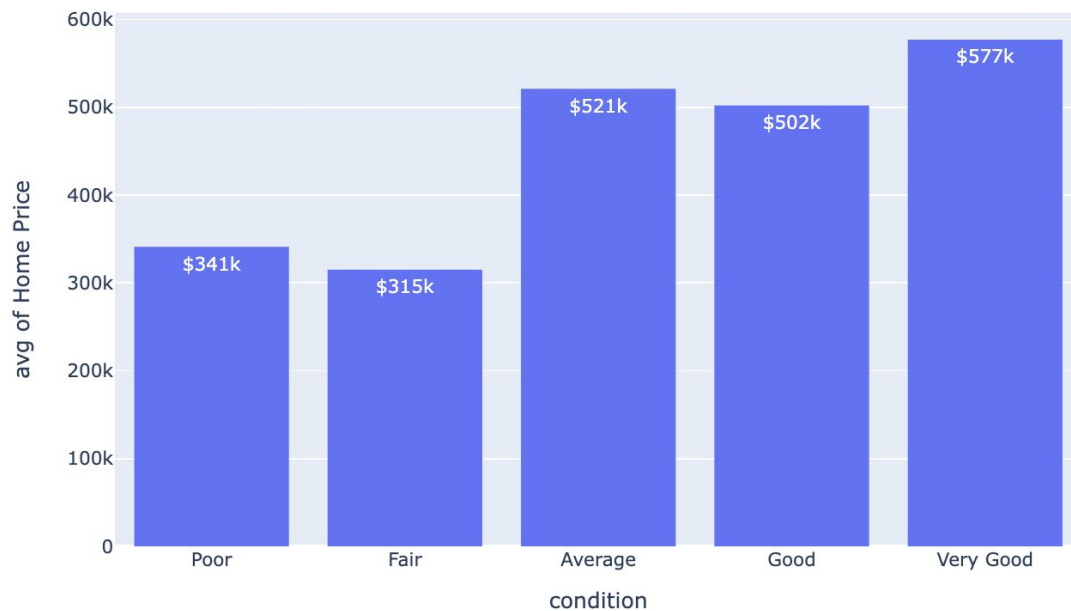


Feature EXPLoRation



Feature EXPLoRation

Home Sale Price vs. Condition



Recommendations

- Prioritize high-grade materials.
 - Rehab distressed homes for \$79,000 to \$105,00 increase.
 - Build luxury/mansion for new development.
 - Acquire waterfront properties
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Limitations

- Further investigation needed for bedrooms and floors.
 - One-hot encoding not used for Condition, Grade, and View.
 - Seasonality did not affect sale price
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FURTHER ANALYSIS

- Use recent and historical data.
 - Consider alternative data sources
 - Consider cyclicity.
 - Analyze seasonality in the market.
 - Try alternative modeling methods.
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THANK YOU

Questions?

Please feel free to reach out at:

nagib@nimblehomes.us

For a more in-depth and interactive analysis, as well as a closer look at the methods used in this presentation, please visit:

<https://github.com/inagib21/King-County-Analysis>
