

Western Washington Housing Analysis

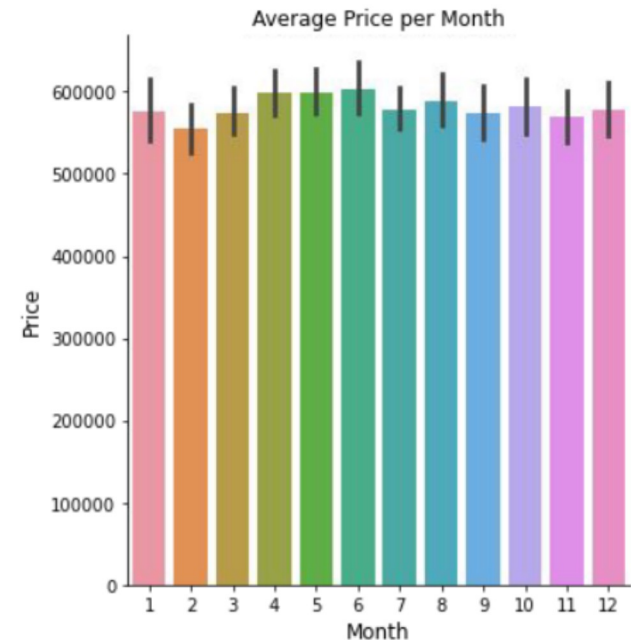
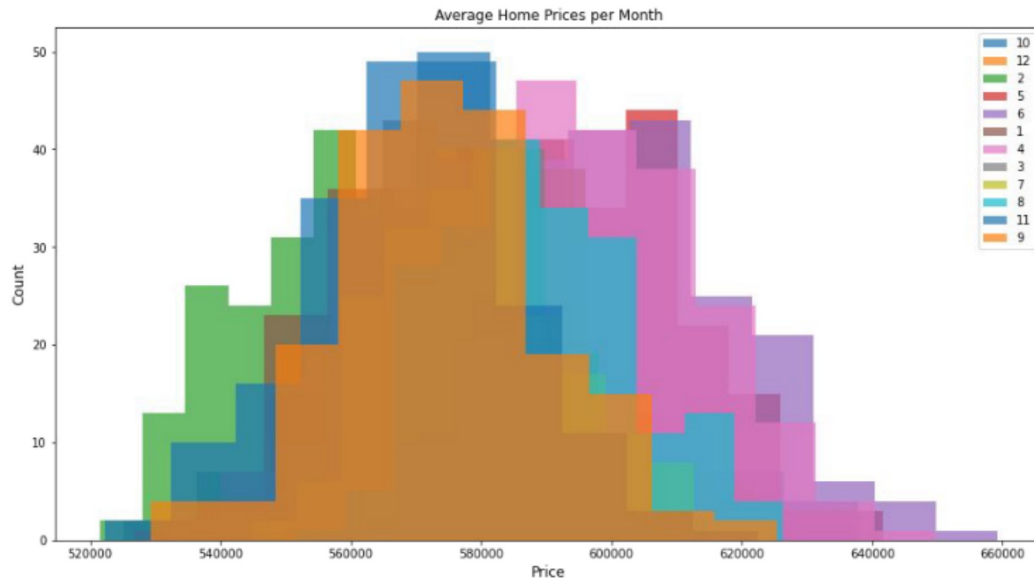
By: Le Truong



Overview:

- Western Washington
 - Age of house
 - Location
 - Features - How do they relate with Price?
 - Square Footage
 - Grade
 - Bathrooms!
 - Weaknesses
 - Next Steps
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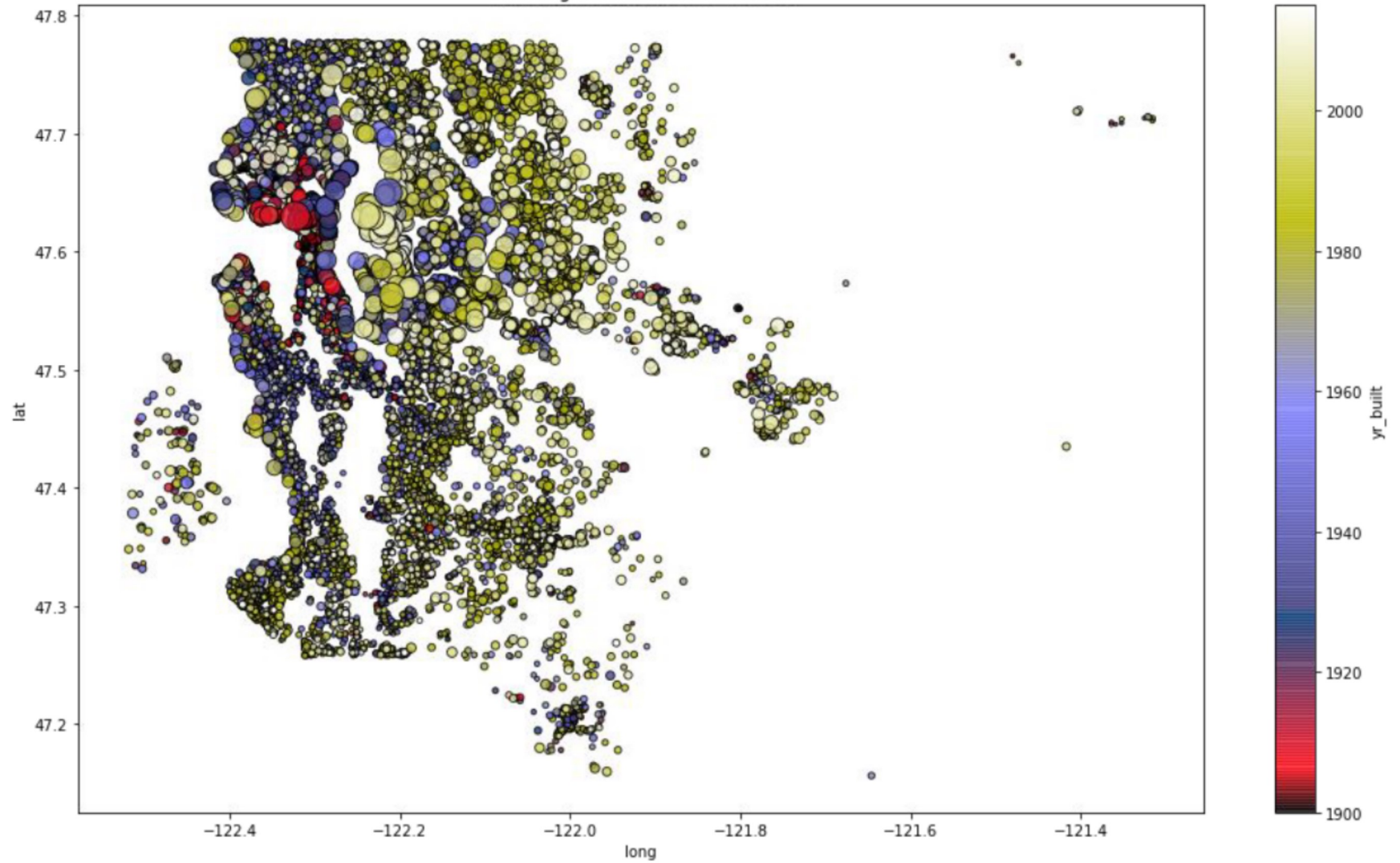
When is the right time to buy a house? Also where?



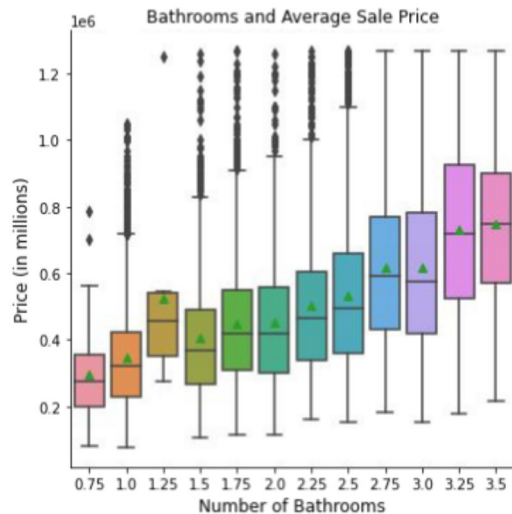
Best time: February (555k average)

Worst time: June (603k average)

Price, Age of Home, and Location



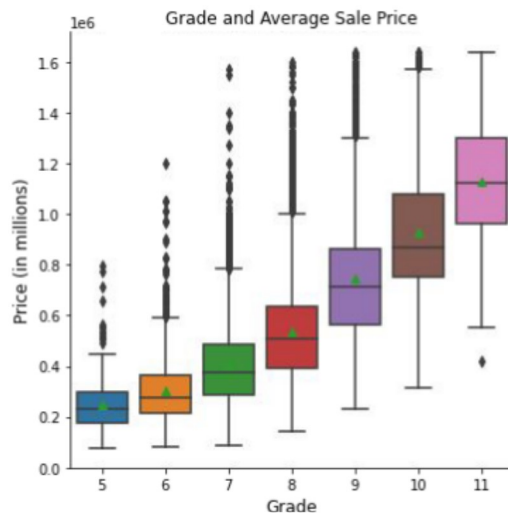
Simple Linear Regression - Bathroom and Price



Bathroom:

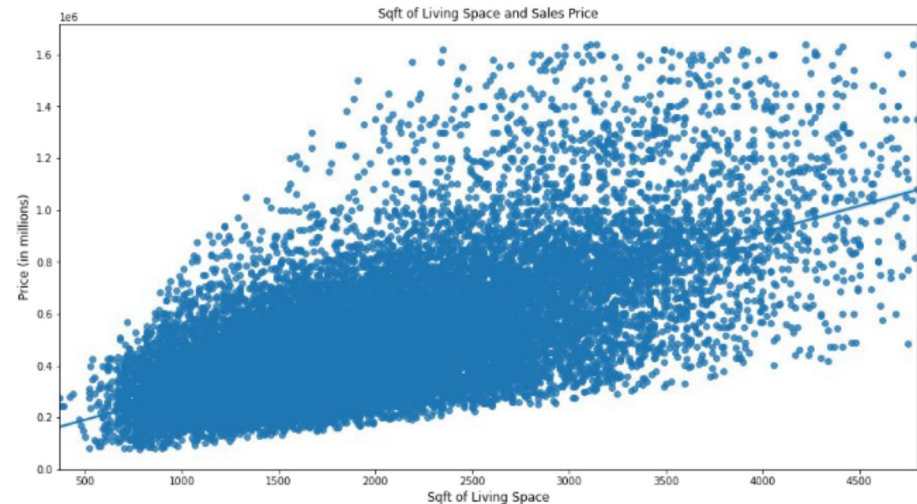
- R-Squared: 0.197 → 20% variance in price
- Intercept: \$188,000
- Co-efficient: \$144,000
- P-Value: 0.557 → 0.56

Adding More Features: Multiple Regressions!



Adding Grade:

- R-Squared: .0456 → 46%!
- Coefficient: \$179,000
- P-Value: 1.04×10^{-5}
- Correlation: 66%



Adding Living Space:

- R-Squared: .490 → 49%
- Coefficient: \$128
- P-Value: .640

Weaknesses of Data

- Human Error
 - Failed Linear Assumptions
 - Bias
 - Other variables
 - Choosing different features
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What is next?

- Deeper dive into specific neighborhoods
 - Schools, North versus South, Employer
 - Other features to compare?
 - Bedrooms
 - Zipcode
 - Figure out more recent data? Larger time frame?
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Thank you!

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