

Atoman Research Services

Maximizing the potential return on an investment in real estate.

Our clients include property developers, builders, real estate investors, and investment banks

Providing data driven advice

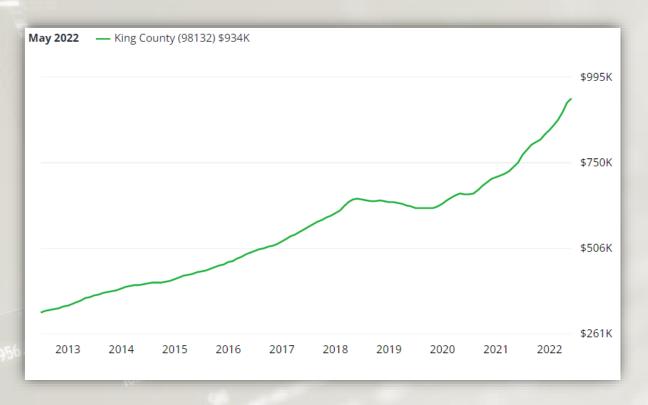
King County metrics

Zillow Home Values Data

- ✓ Zillow Home Value Index \$934k
- ✓ Consistent growth
- ✓ Up 24.5% over the past year

Scarce inventory

- ✓ Seattle 0.64 months
- ✓ King County 0.82 months



Tools and Data

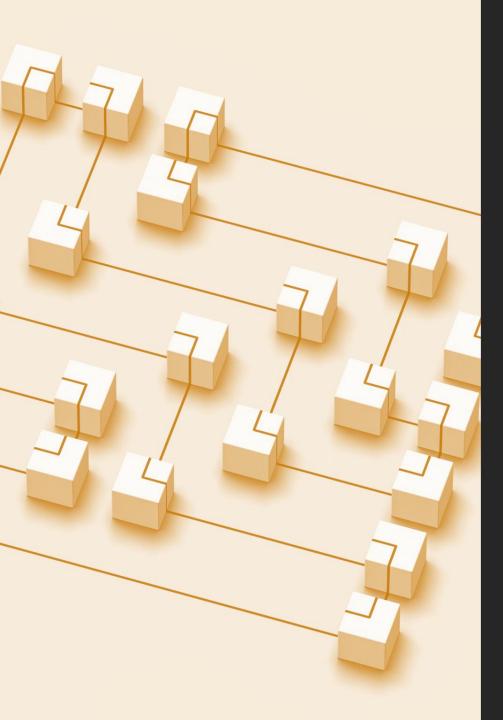
Dataset: 25,000 properties sales records collected over the last year

Tools:

- Simple baseline regression model
- ✓ Feature engineering
- ✓ Increasingly complex multiple regression models

Process

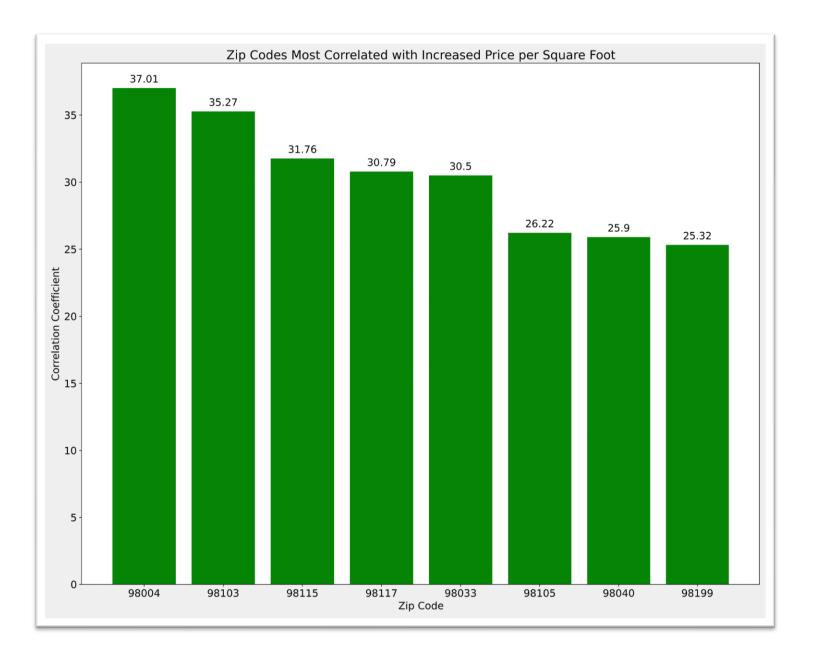
- ✓ Optimize price per square foot
- ✓ Start with a simple baseline model
- ✓ Use a multiple linear regression model for inferential analysis
- \checkmark Engineer features that improve the R^2 performance and remove insignificant features



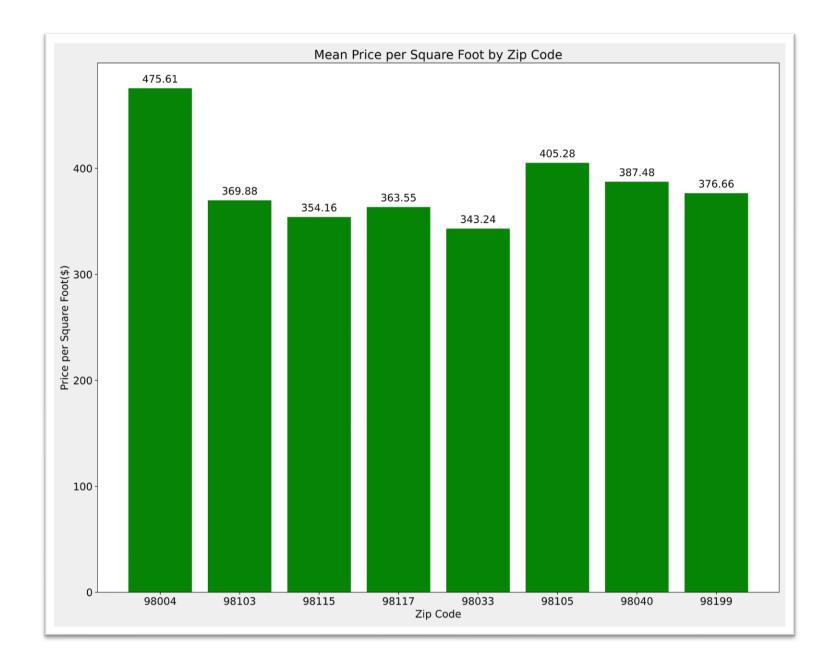
Impactful features

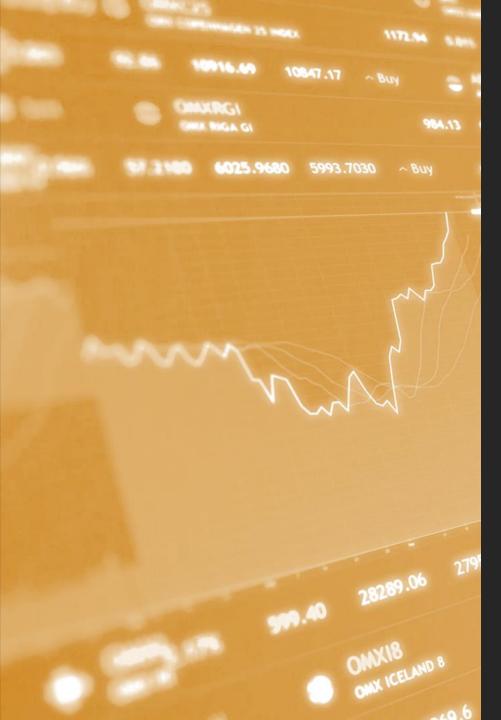
- ✓ Zip codes
 98004, 98103, 98115, 98117, 98033, 98105, 98040
 Seattle, Bellevue, Clyde Hill, Beaux Arts Village, Hunts Point
- Building materials grade (-24.12 coefficient)
- Waterfronts (19.63 coefficient)

Zip code correlation coefficients



Mean price per square foot in top zip codes





Conclusion and next steps

Strong predictors of price per square foot

- ✓ Zip codes
- Building grade
- ✓ Waterfront

Next steps

- Add more features
- Address variable interaction

Contact information

Tom Chapman – thomas.h.chapman@gmail.com

Anton Smirnov – antonalekssmirnov@gmail.com

