

# King County Housing

Data Analysis and Model

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# SUMMARY



# Microsoft

**Descriptive analysis and modeling reveal which factors contribute most to housing prices:**

- **Living Area(in square feet)**
- **Location**
- **Waterfront Property**
- **House Quality(grade)**

# OUTLINE

- Business Problem
- Data and Methods
- Results
- Conclusions

# BUSINESS PROBLEM

- Microsoft would like to to help new hires find housing.
- Create model to predict house prices
- Identify factors which most affect housing price

# DATA & METHODS

## Data

- King County housing sales data in 2014 and 2015
- Median household incomes by Zipcode

# DATA & METHODS

## Methods

- Advanced Statistics
- Log Transformations
- Linear Regression
- Machine Learning

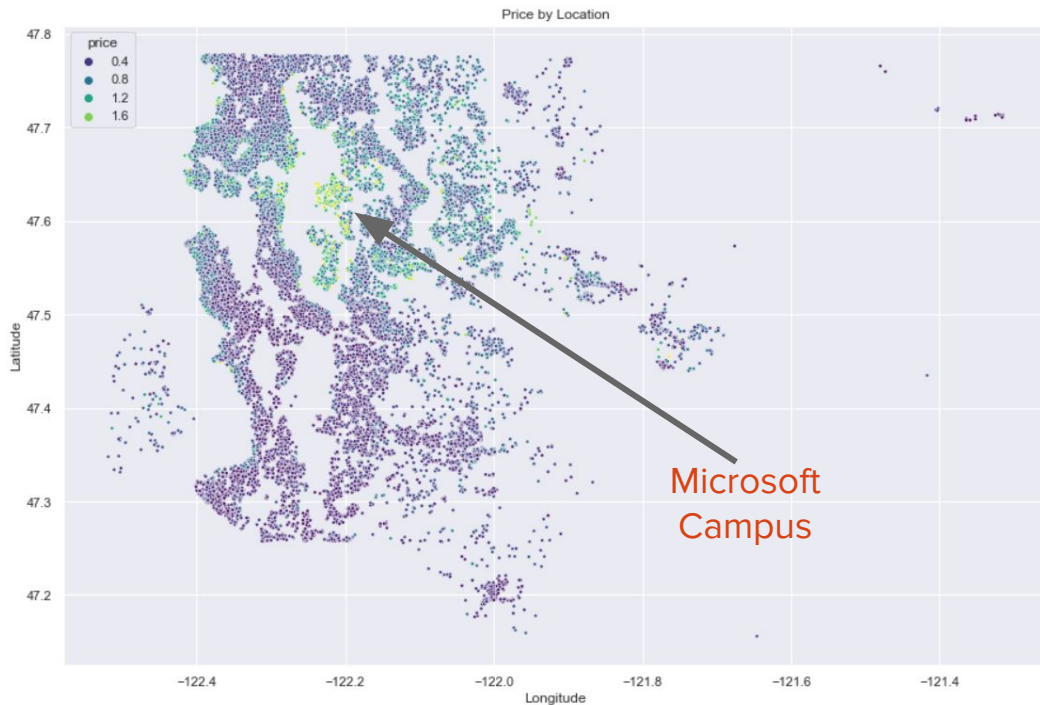
# RESULTS

- Price increases proportionally with living area.



# RESULTS

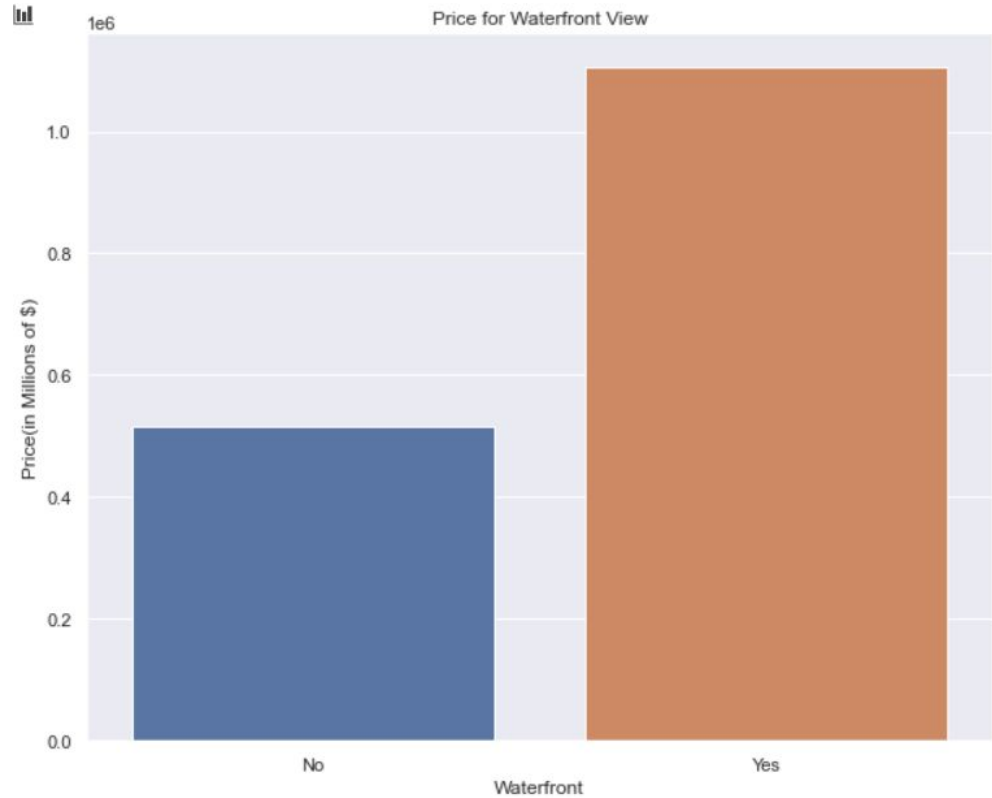
- Most expensive houses are in the same general area.
- Proximity to Microsoft campus plays a big factor





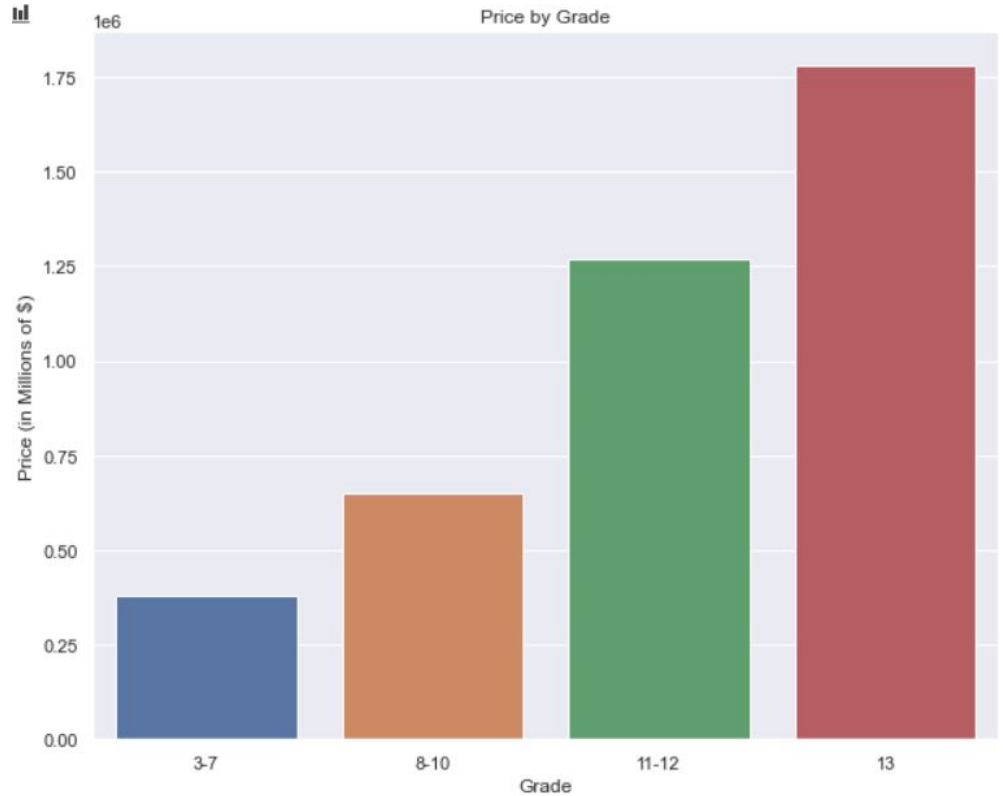
# RESULTS

- Having a waterfront view has a substantial increase in price.



# RESULTS

- Quality of the house(grade) has a significant impact on price.
- This is most apparent in the grades 11 and higher



# CONCLUSION

## FACTORS AFFECTING HOUSE PRICE

- Living Area(in square feet)
- Location(proximity to Microsoft Campus)
- Waterfront View
- House Quality(grade)

## NEXT STEPS

- Find more recent data
- Better system for quantifying effect of location
- Use models more robust than Linear Regression

# Thank You

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