

The background is a solid blue gradient. Overlaid on this are several sets of thin, white, curved lines that flow from the left side towards the right, creating a sense of movement and depth. These lines are more densely packed in some areas, forming peaks and valleys that resemble stylized waves or a topographical map.

ROYAL HOMES

*KING COUNTY HOUSING LINEAR REGRESSION ANALYSIS*

*BY NATALYA DORIS*



# BUSINESS PROBLEM

We seek to answer the following questions:

- What types of homes should Royal Homes sell to make the most profit?
- What features lend towards higher sale prices?



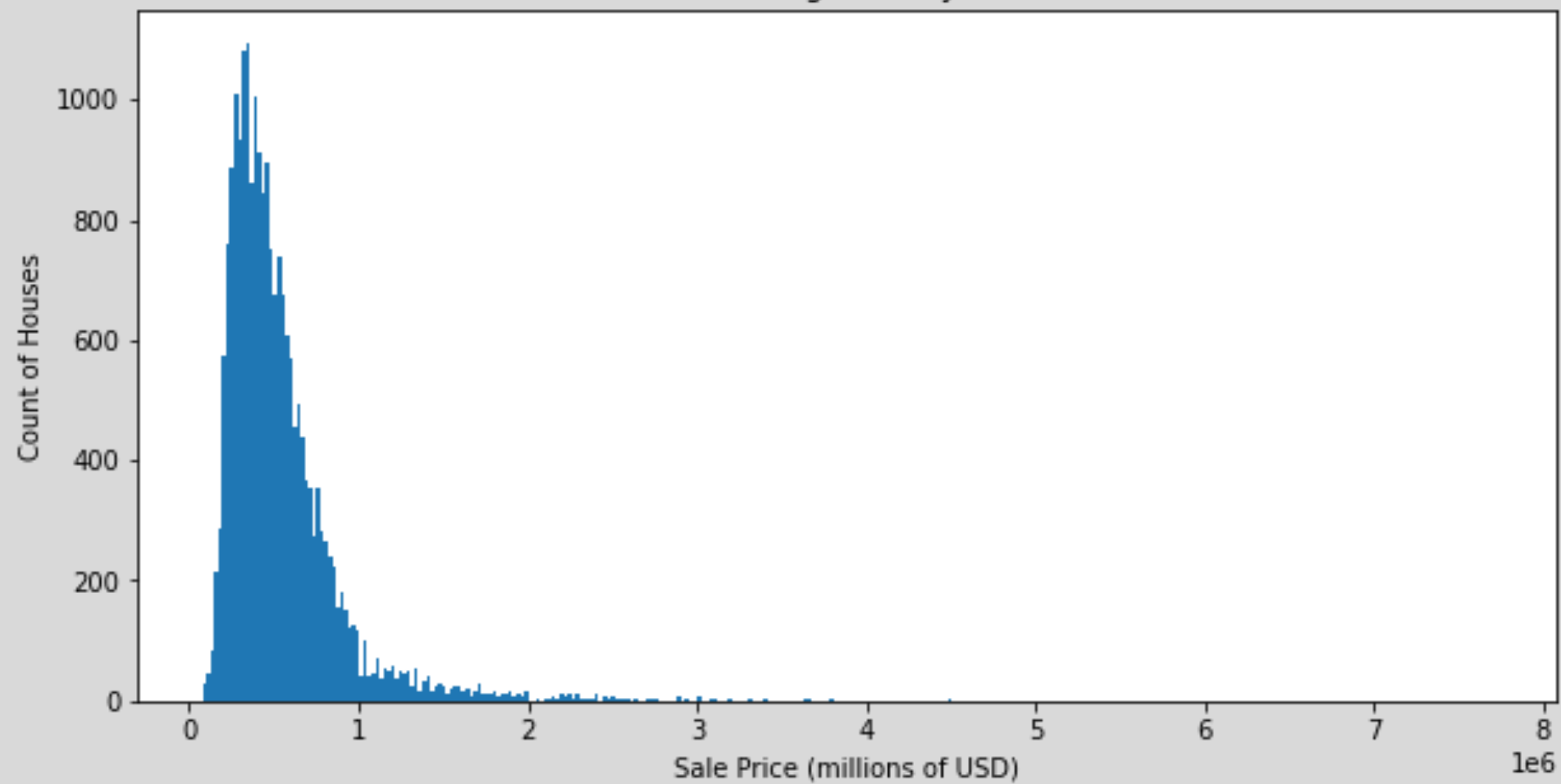


# THE DATA

Feature	Description	Type
price	sale price (USD)	numerical
sqft_living	square footage of living space	numerical
zipcode	ZIP code used by the USPS	categorical
waterfront	whether the house is on the waterfront	categorical
view	quality of the view from house	categorical
condition	how good the overall condition of the house is	categorical



Distribution of Kings County House Prices



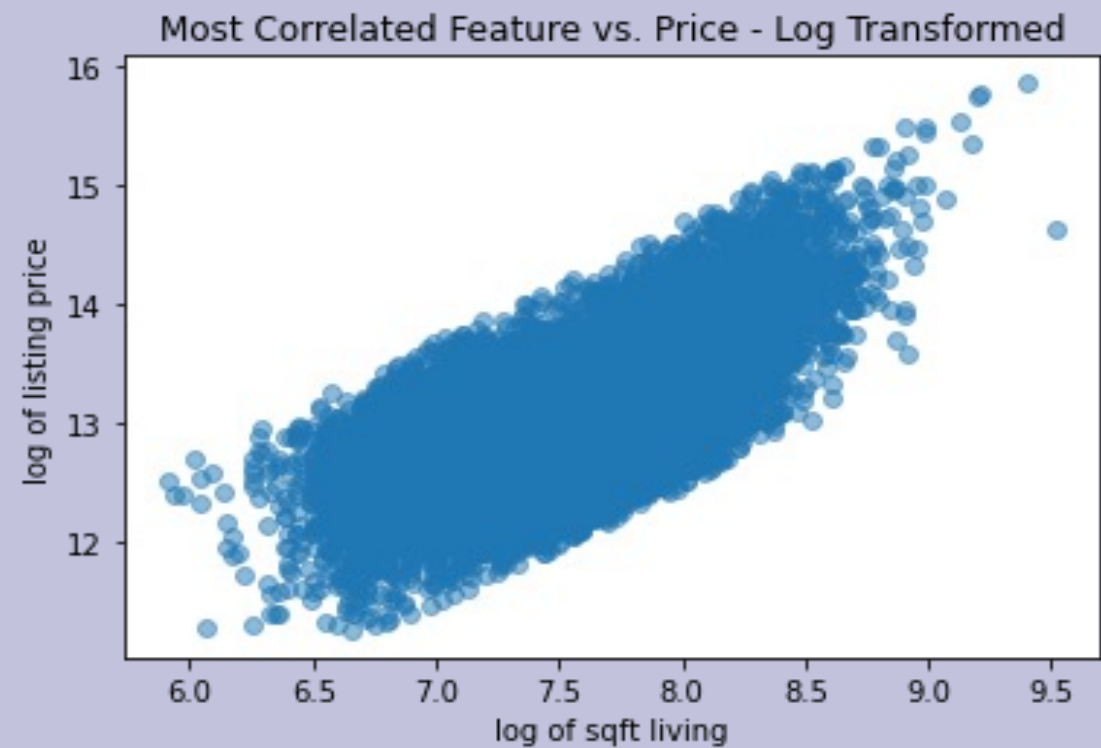
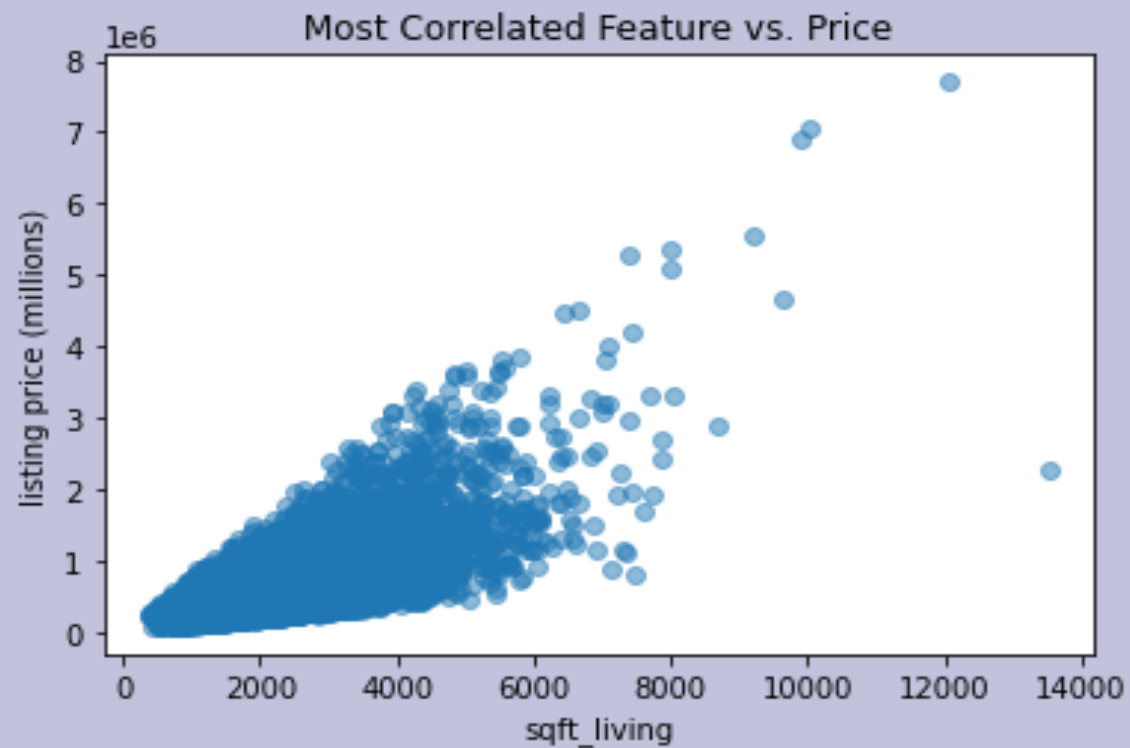
# THE MODEL

## Features:

- sq. ft. of living space
- zip code
- waterfront status
- view
- condition



# MODEL SELECTION



# MODEL RESULTS

*85% of variability in price  
explained by the model*

$R^2$ : 0.845

*Probability that  
coefficients are 0 is  
less than 5%*

P-values < 0.05

*Meets model  
assumption (normality)*

Skew: 0.05

Coefficient –  
sq. ft. living  
(log): 0.68

Coefficient –  
zip 98039 : 1.50

*Suggestive of strong positive relationship between  
price and sq. ft. living; zip code 98039*



# RECOMMENDATIONS

- Sell homes in the following zip codes: 98039, 98004, 98112, 98102, 98109
- Focus on homes with 2500 sq. ft. living or higher
- Target waterfront properties and homes with good or excellent views
- Avoid houses in fair or poor condition





# NEXT STEPS

1. Do a deep dive on top zip codes – what attributes do these houses most commonly feature?
2. Find data that breaks down 'view' into more specific categories – water view vs city view vs greenery, for example
3. Gather data on sales in more recent years – are there any attributes that are more impactful on sale price now?

# THANK YOU

If any additional questions, feel free to reach me at:

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