

# REAL ESTATE ANALYSIS AND FORECASTING

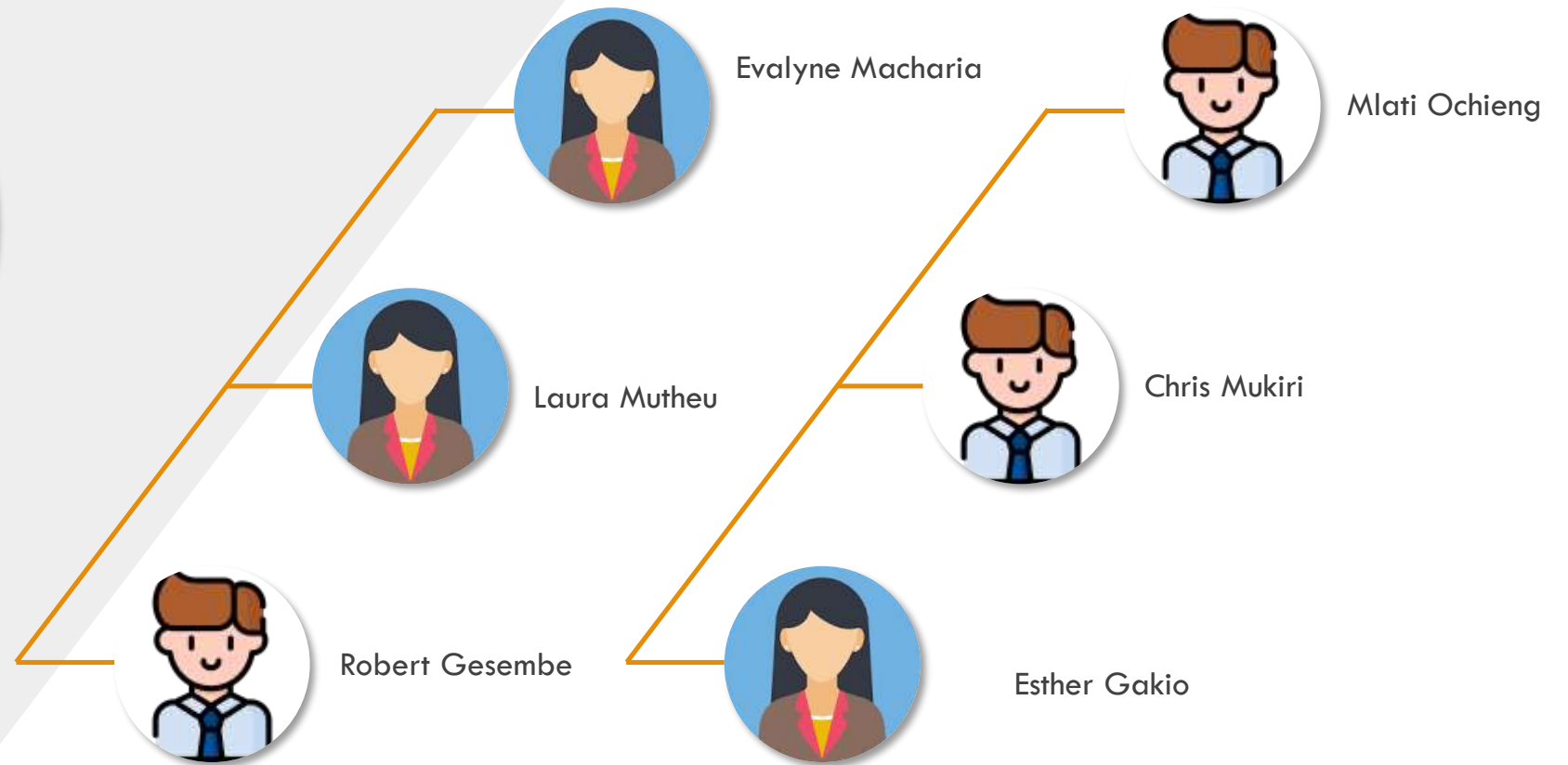


# TEAM MEMBERS



**GROUP SEVEN**

**PHASE 4 PROJECT**



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## BUSINESS OBJECTIVE

Use time series modeling to find the top 5 zip codes for investment, focusing on maximizing profits.



# BUSINESS PROBLEM

The real estate investment firm has tasked us, as consultants, with identifying the top 5 zip codes for investment opportunities. In this context, "best" is defined primarily in terms of profit margins.

The recommendation should prioritize zip codes with the highest potential for profitability, based on historical real estate price data.

## RESEARCH QUESTIONS

1. Evaluate ROI for investments in the top 5 zip codes, considering short and long-term projections, to maximize profitability.
2. Determine optimal time series modeling techniques for predicting real estate prices and identifying profitable investments.
3. How will the recommendation address risk and uncertainty in real estate investments?
4. What strategies can be employed to communicate the recommendation effectively to stakeholders?



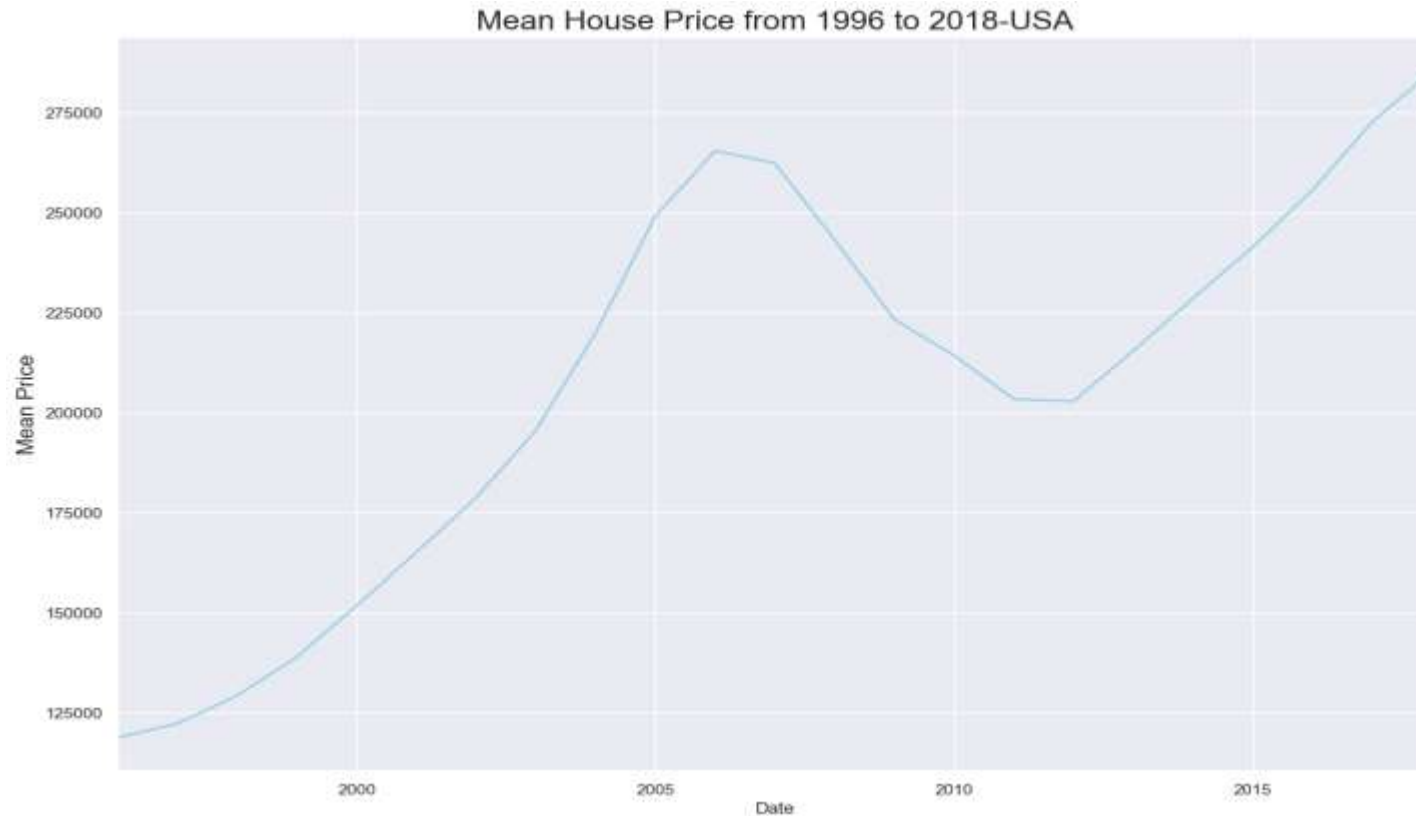
# DATA UNDERSTANDING

The name of the dataset is called Zillow\_data

- Source: Kaggle
- Number of columns: 272
- Number of records: 14723

# ANALYSIS

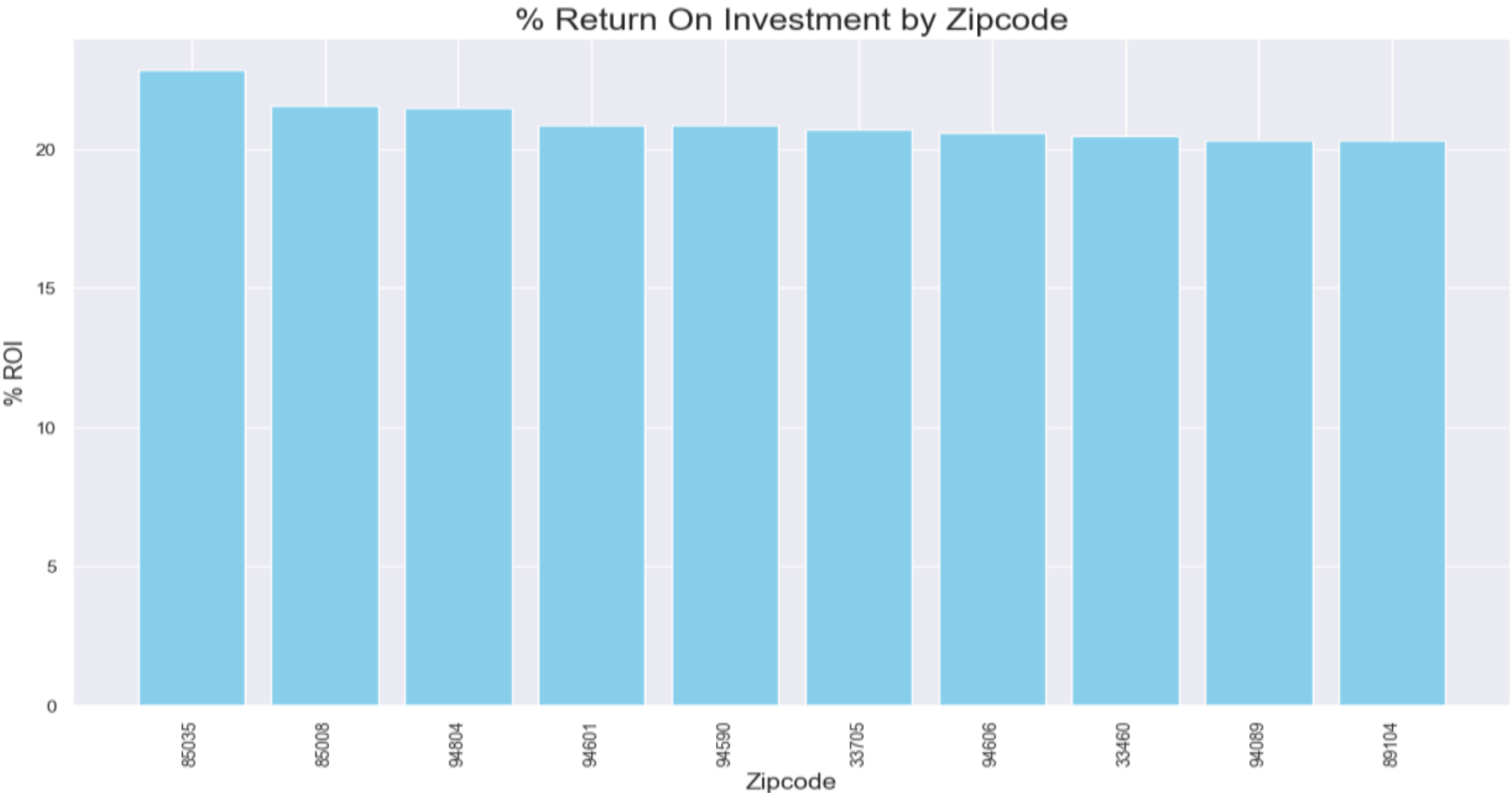
## Shifts in Home Prices Over Time





# ANALYSIS

## Visualizing ROI Percentages Across Zipcodes

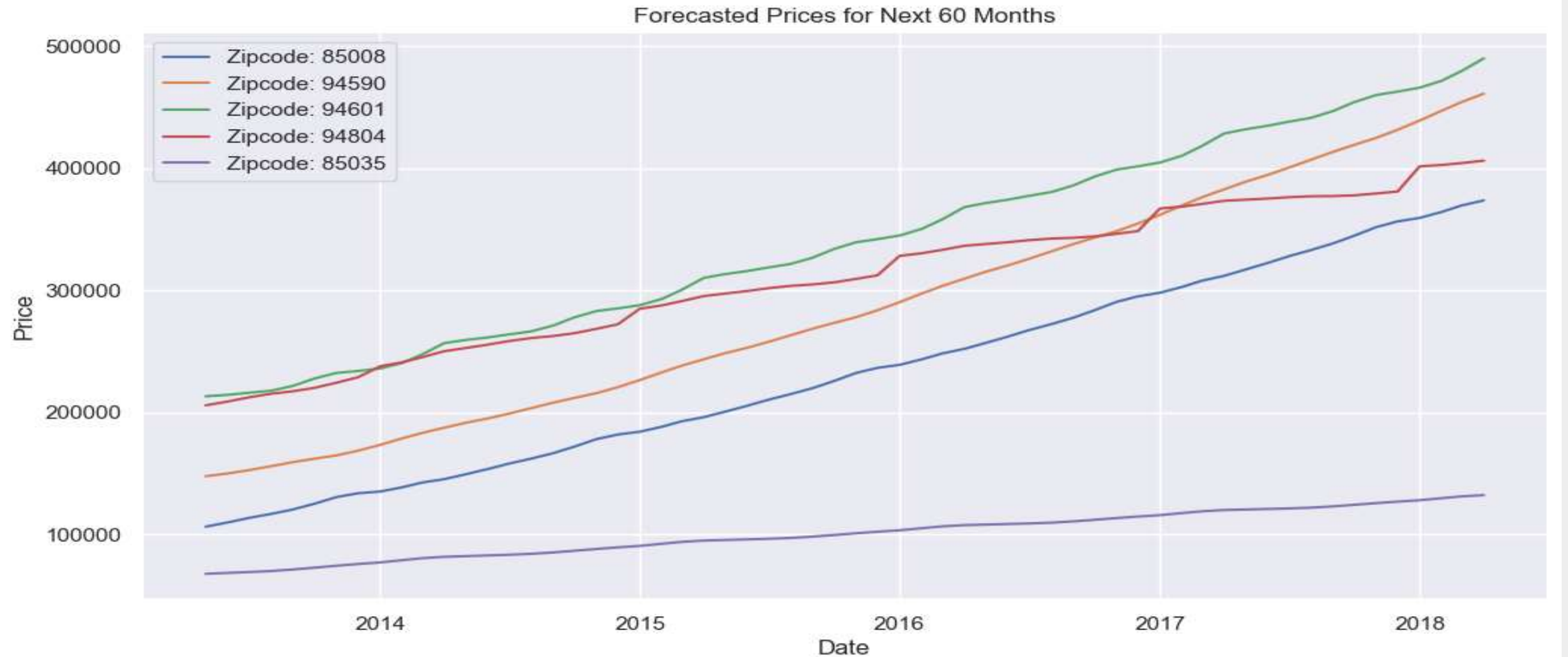


# TIME SERIES MODELLING

- 1 .During our modeling process, we observed distinct trends in housing prices over different periods of time.
- 2 .Furthermore, it was evident that the prices exhibited non-stationarity, indicating constant fluctuations over time.

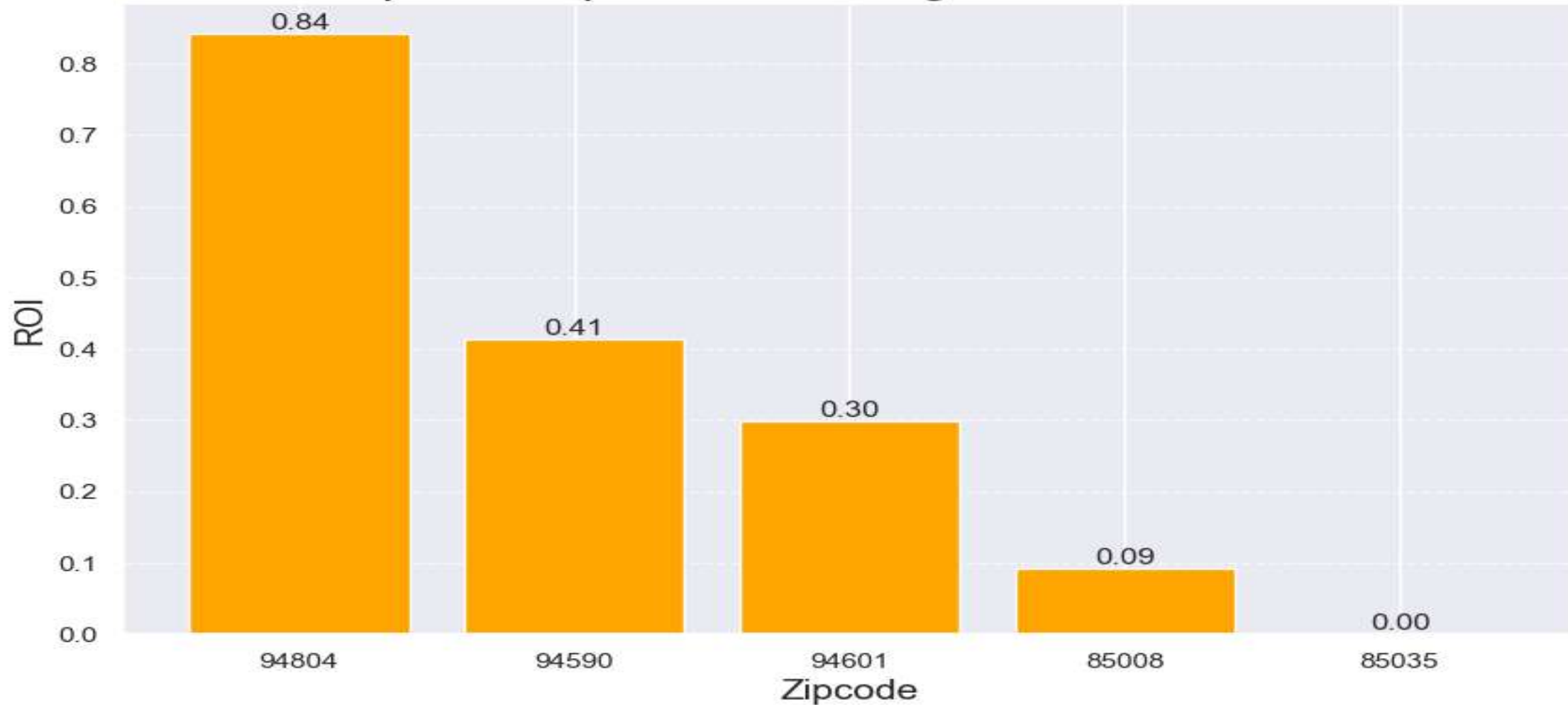
# FORECASTING

Forecasting for my top 5 zipcode for the next five years.



# FINDINGS

Top Five Zipcodes with Highest ROI Forecast



# RECOMMENDATIONS

- Consider prioritizing investment in Zipcode 94804 due to its highest forecasted ROI among the top five zip codes.
- While all zip codes show promising forecasted prices and positive trends, exercise caution in Zipcode 85035, which lacks a positive ROI.
- Emphasize the importance of continuously monitoring market trends, economic indicators, and relevant external factors that may impact the real estate market.



# CONCLUSIONS

Opportunity: Zipcode 94804 offers the highest ROI forecast.

Market Outlook: Positive price forecasts in all zip codes indicate favorable market conditions.

Caution: Avoid Zipcode 85035 due to negative ROI.



A low-angle, upward-looking shot of a modern skyscraper with a curved glass facade. The building's surface reflects the sky and surrounding structures. To the left, a portion of another building with a textured, orange-brown facade is visible. The sky is filled with soft, white clouds. A bright orange rectangular box is centered on the building's facade, containing the text 'THANK YOU' in white, uppercase letters.

THANK YOU