

A background image featuring the Golden Gate Bridge's suspension cables and towers on the left, and a panoramic view of the San Francisco skyline across the water on the right. The sky is a mix of blue and light orange, suggesting a sunset or sunrise. The water is a deep blue-green.

Property Investment, California.

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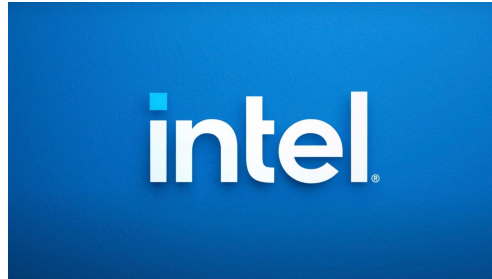
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RECOMMENDATION & FURTHER STUDY

- ❖ With 54 of the Fortune 500 companies headquartered in California, like Google, Apple, Disney, Oracle and Intel among others, California is positioned for continued job growth.
- ❖ The combination of job growth and a world-renowned lifestyle and culture supports home values.



Project Objective:



Building a time series model for predicting best Zip-codes worth property investment.

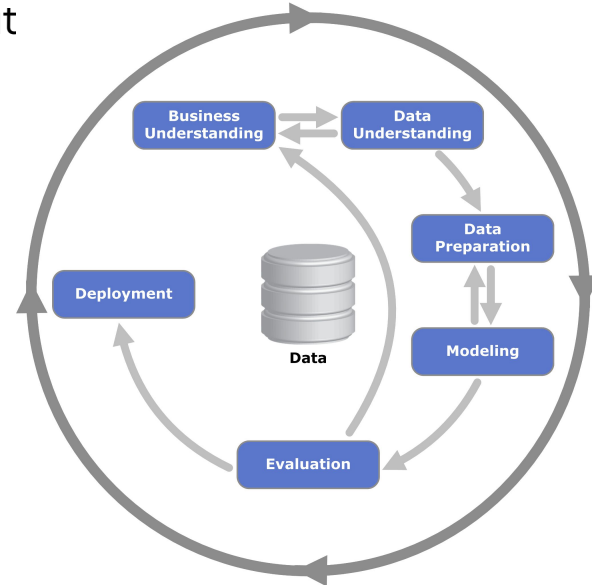
Data:

Zillow data set

- 51 States.
- Approximately 14,723 zip codes across US.
- Median home sales prices throughout all states
- Data recorded from 1996 to 2018.

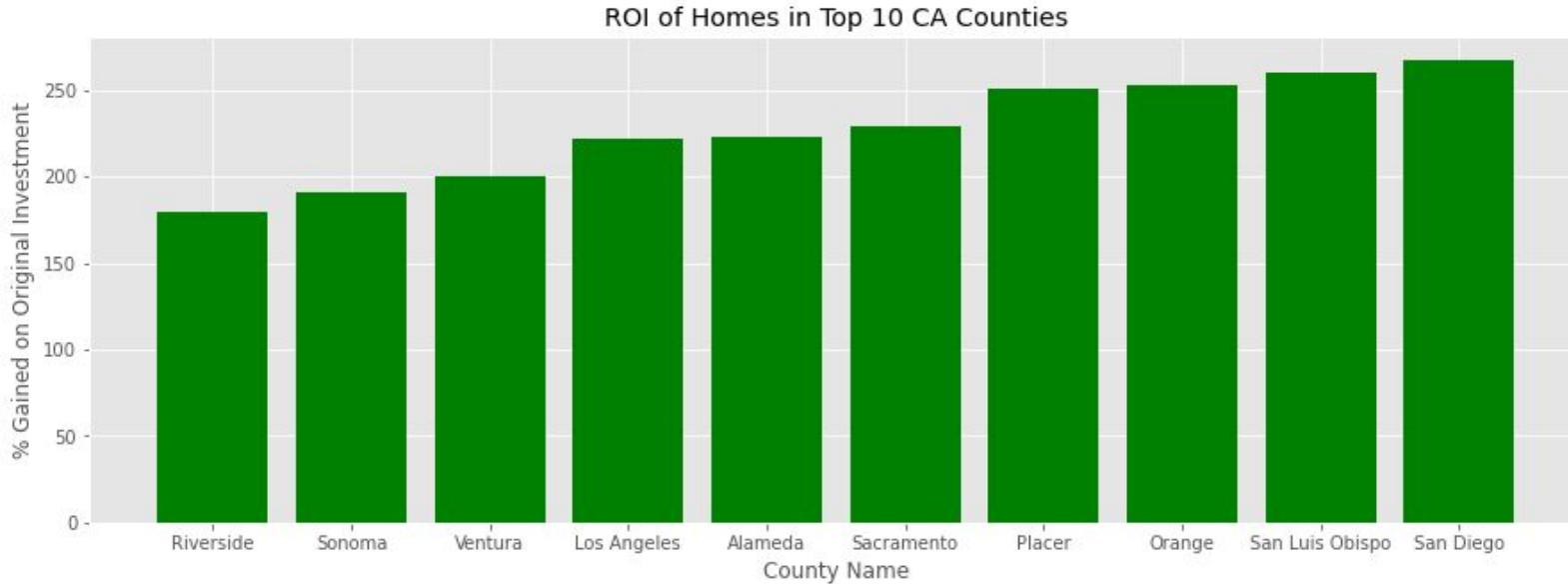
Methods:

- CRISP-DM approach
- Return on Investment
- Risk to Reward ratio (Coefficient of variation)
- SARIMAX modeling



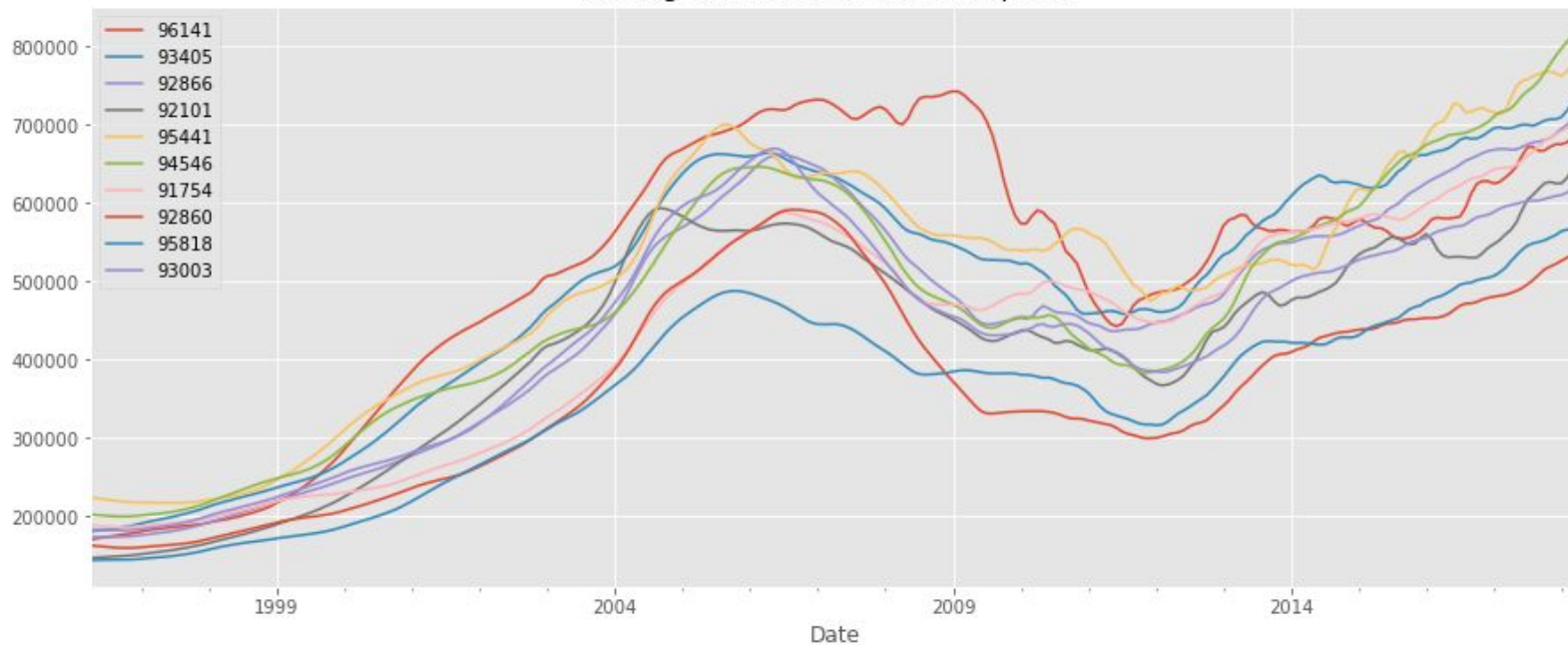
RESULTS

- Each home worth is at least 150% its original value since April 1996.
- **Coefficient of Variation (CV) = Risk / Reward < 0.35**



- Generally an upward trend with a crash in home values from 2007 -2012
- Top 10 zip codes with better recovery history

Average Home values of each zipcode



RESULTS

PREDICTED RESULTS

	1 year return	3 year return	5 year return	10 year return
<u>92866:</u> Placer county \$ 583,638	2.5%	2.67%	2.67%	2.67%
<u>93405:</u> San Luis Obispo \$ 641,957	8.1%	12.39%	13.0%	13.13%
<u>92101:</u> San Diego \$ 551,370	10.47%	14.06%	14.27%	14.27%
<u>92860:</u> Riverside county \$ 439,238	7.43%	11.23%	11.82%	11.93%
<u>91754:</u> Los Angeles \$ 587,200	2.6%	4.72%	5.32%	5.54%

Recommendation



- **96141** (Placer county): Buy, Flip and sell homes 1-3yrs.
- **93405** (San Luis Obispo): Buy and hold for 5yrs.
91754 (Los Angeles):
- **92101** (San Diego): Buy and hold for the next 3-5 yrs.
95441 (Riverside):

- Increase effectiveness of model with more recent years of data and examine how recent events such as COVID have impacted the Real Estate business.
- Explore how model would be able to adjust to exogenous data such as
 - interest rate
 - rent values
 - GDPto further investigate their relationship with home values.

THANKS

Does anyone have any questions?

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