
Zillow Investment Analysis



The background image features a magnifying glass focusing on a bar chart. The chart has blue and green bars for quarters Q2, Q3, and Q4. A scale marker '1,000' is visible in the upper right. The text 'Zillow Investment Analysis' is overlaid in white.

Quarter	Blue Bar Value (approx.)	Green Bar Value (approx.)
Q2	1,200	1,000
Q3	1,100	900
Q4	1,000	800

Overview & Goal

Overview

- Analyze home sales values from a Zillow dataset

Goal

- **Identify the top 5 zip codes to invest in** based on predicted future appreciation of real estate
-

Dataset Utilized

Data

- Data used from Zillow research
- Real estate home sales prices in North America from 1996 – 2018
- Geographic, value, and time of sale data

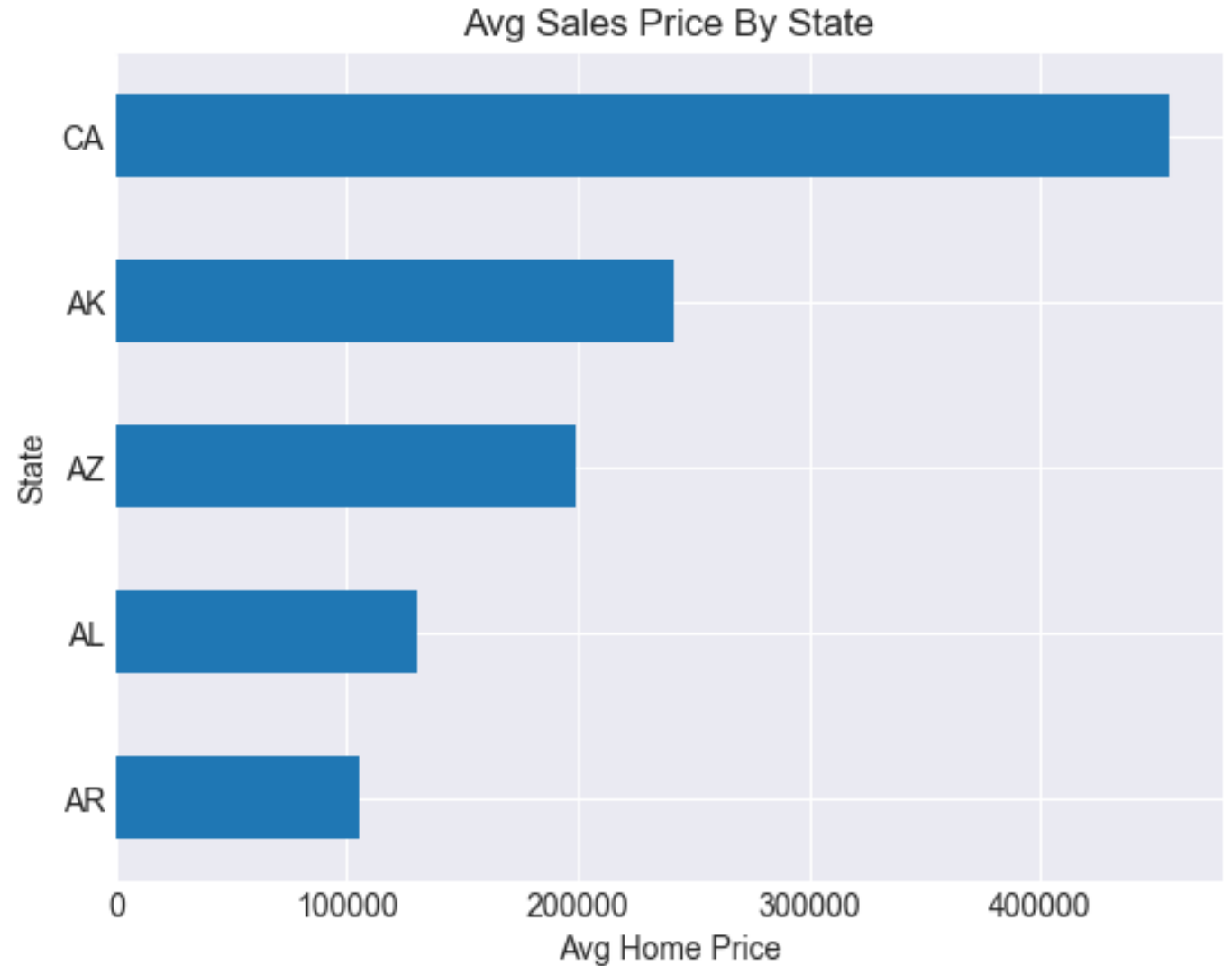
Limitations

- Limited variables besides value and location data for predictions
-

Average Sales Price By State

Key Takeaways

- CA, AK, AZ, AL, and AR have the highest avg sales price

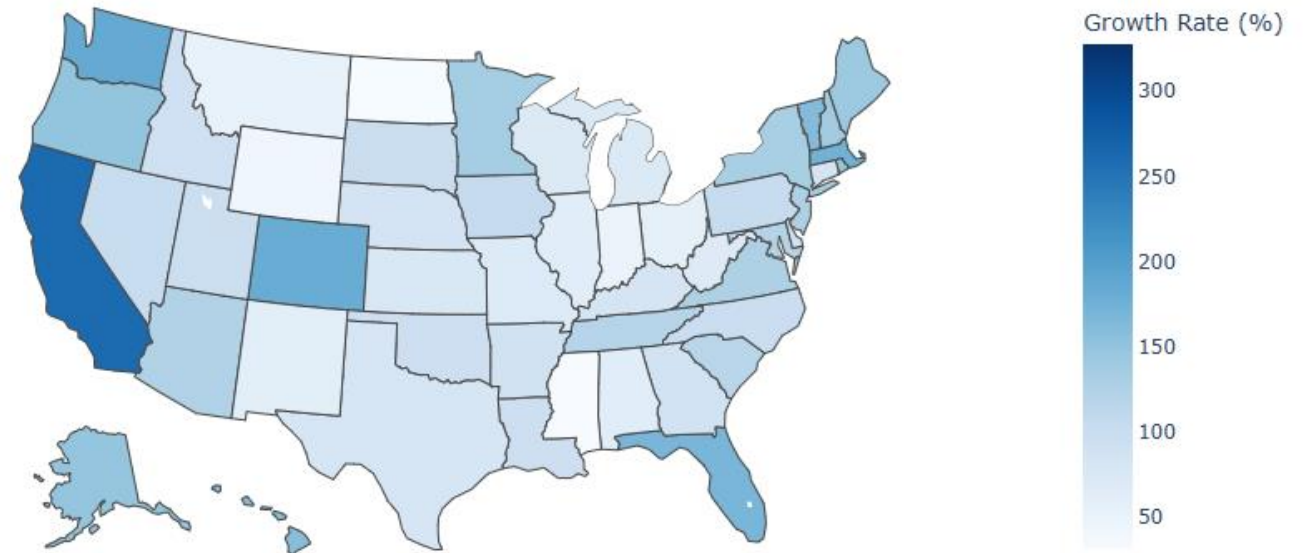


State Growth Rates (1996-2018)

Key Takeaways:

- CA, WA, and CO have the highest growth rates

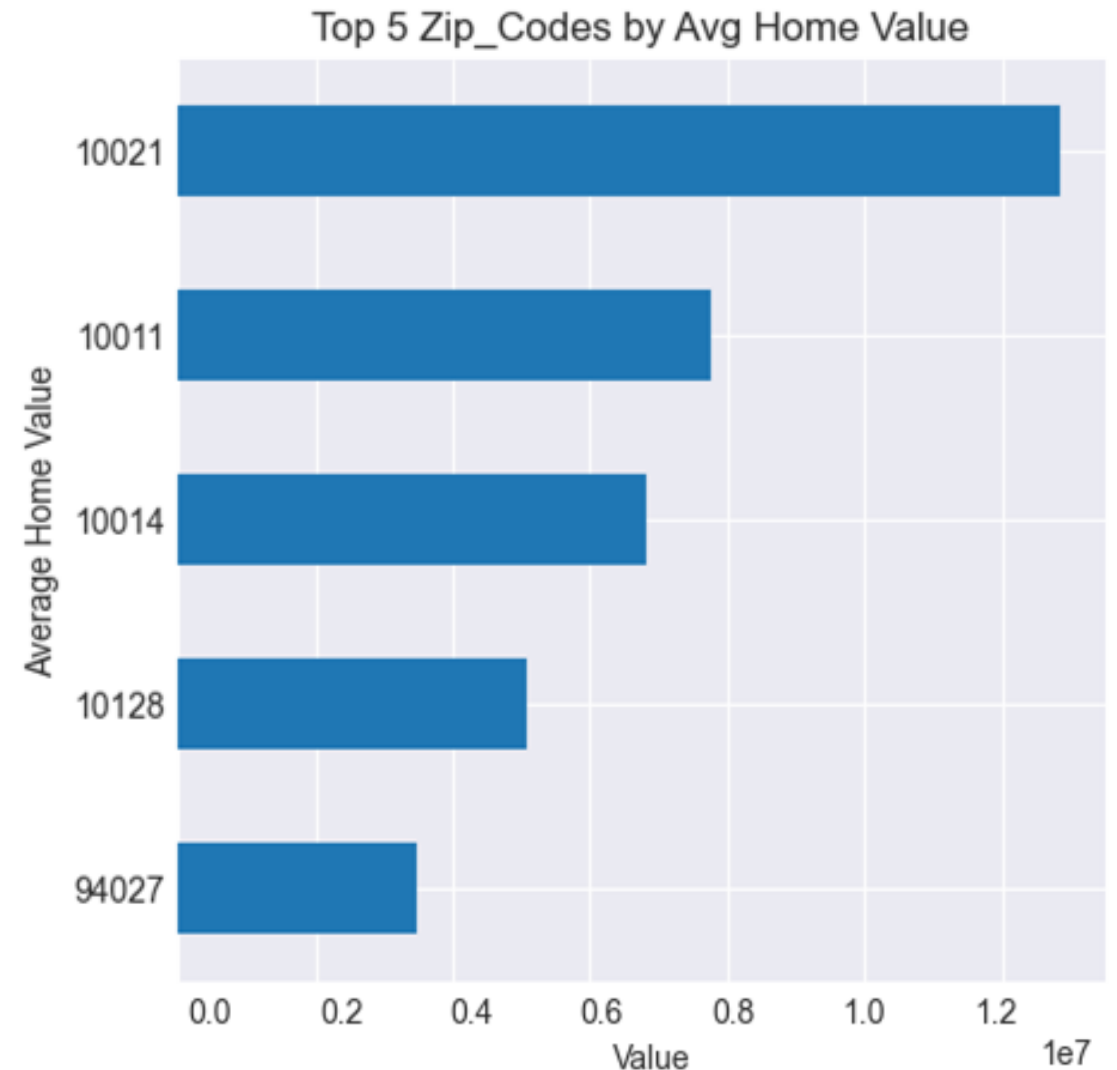
State Growth Rates from Earliest to Latest Year



Top Zip Codes by Avg Home Value

Key Takeaways

- These 5 zip codes have the most expensive homes

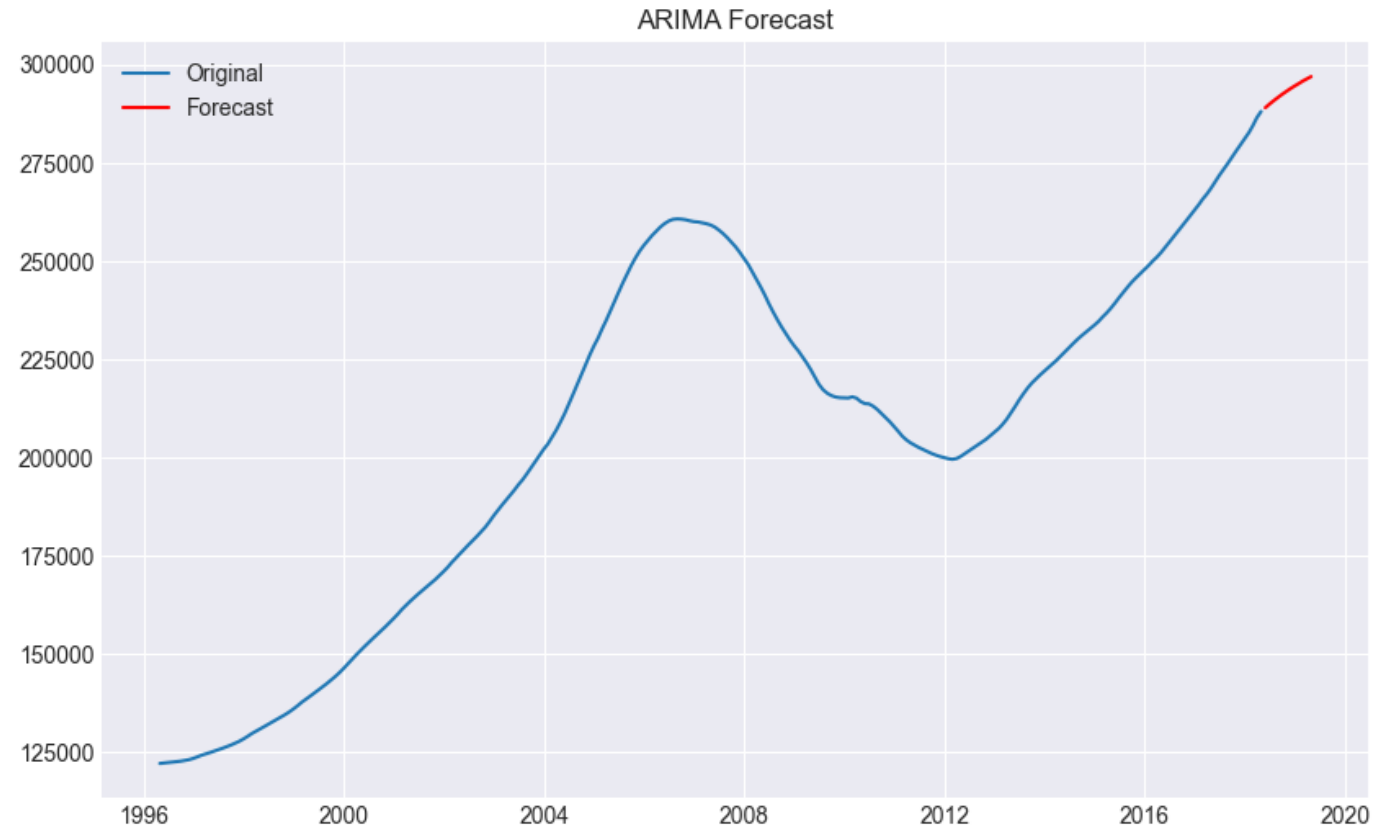


ARIMA Model

#1

Results:

- The model is **simple and effective**, capturing trends and smoothing errors.
- It is a good starting point
- Does **not include seasonality**. If the data has seasonal patterns (e.g., yearly trends)

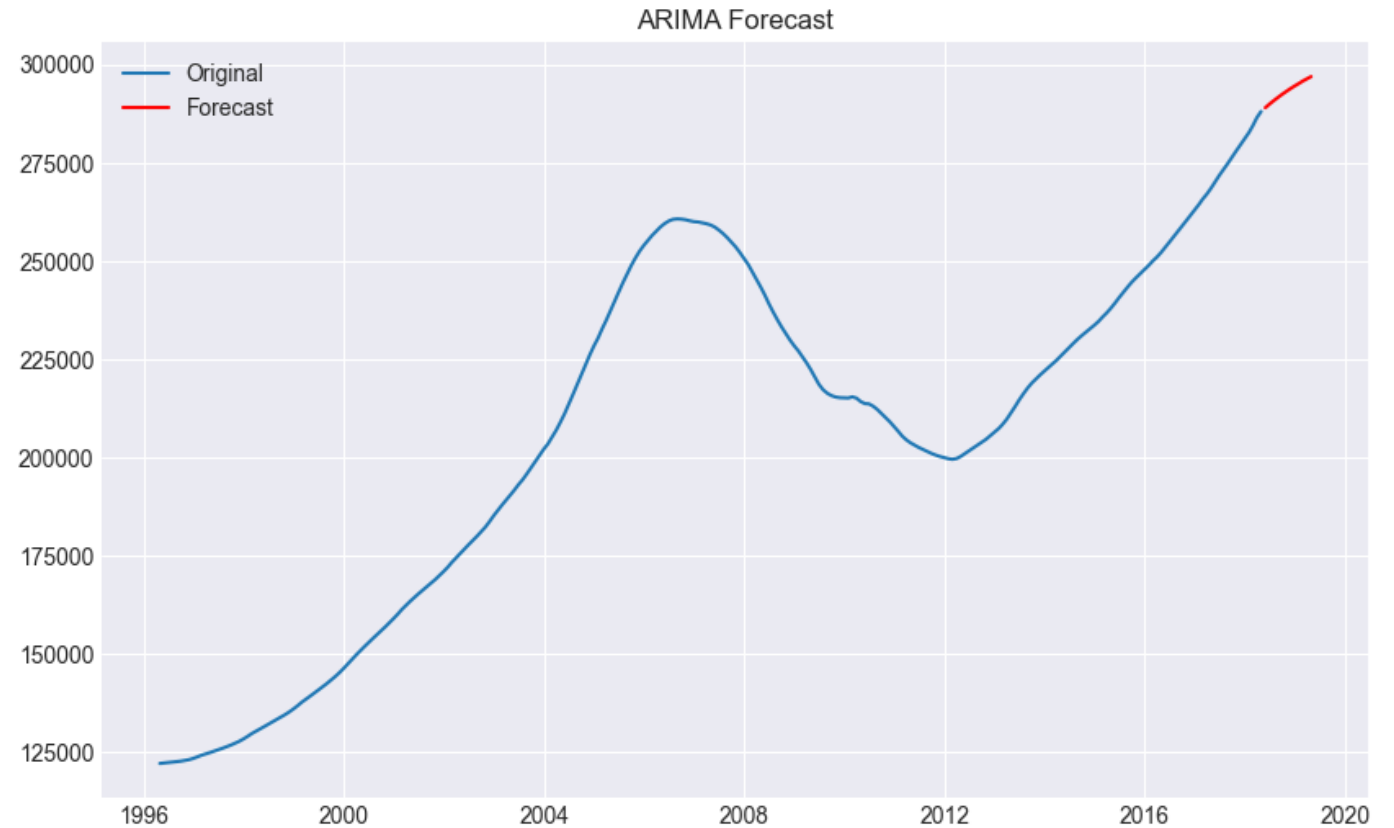


ARIMA Model

#2

Results:

- More complex with an additional AR term.
- Slightly worse fit
- May capture some **oscillations** in the trend due to the second AR term, but this adds unnecessary complexity.

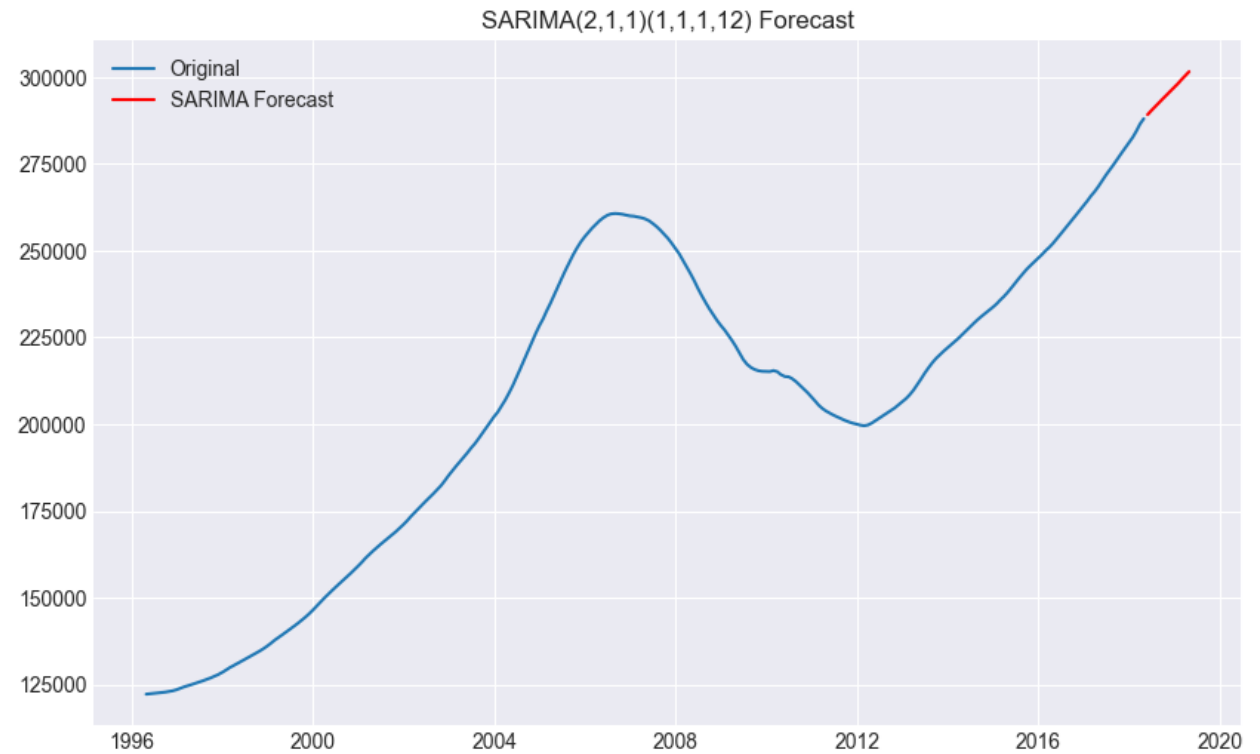


SARIMA Model

Results:

- **Incorporates Seasonality:**
- **Better Fit Metrics:** AIC, BIC, and log likelihood are all much improved.
- **Smaller Errors:** the model has accounted for most patterns in the data.

This model has the best results fo far



Recommendations and Next Steps

- The Zip Codes **79936** and **60614** show the strongest growth potential and should be prioritized for investment.
- Combine these predictions with further research** and market analysis to ensure well-informed, profitable decisions.

