

Housing Investment in Houston

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Business Understanding

I will be using a time series model to conclude which Harris County Texas zip codes produce the best model. I will determine which model varies less through time to present the zip code investment with the least risk.

Data

The data used is the housing markets from 2011-2016 of the top 15 size ranked zip codes in Harris county Texas. The year 2017 is used as the test set to predict from 2018-2020.

Method

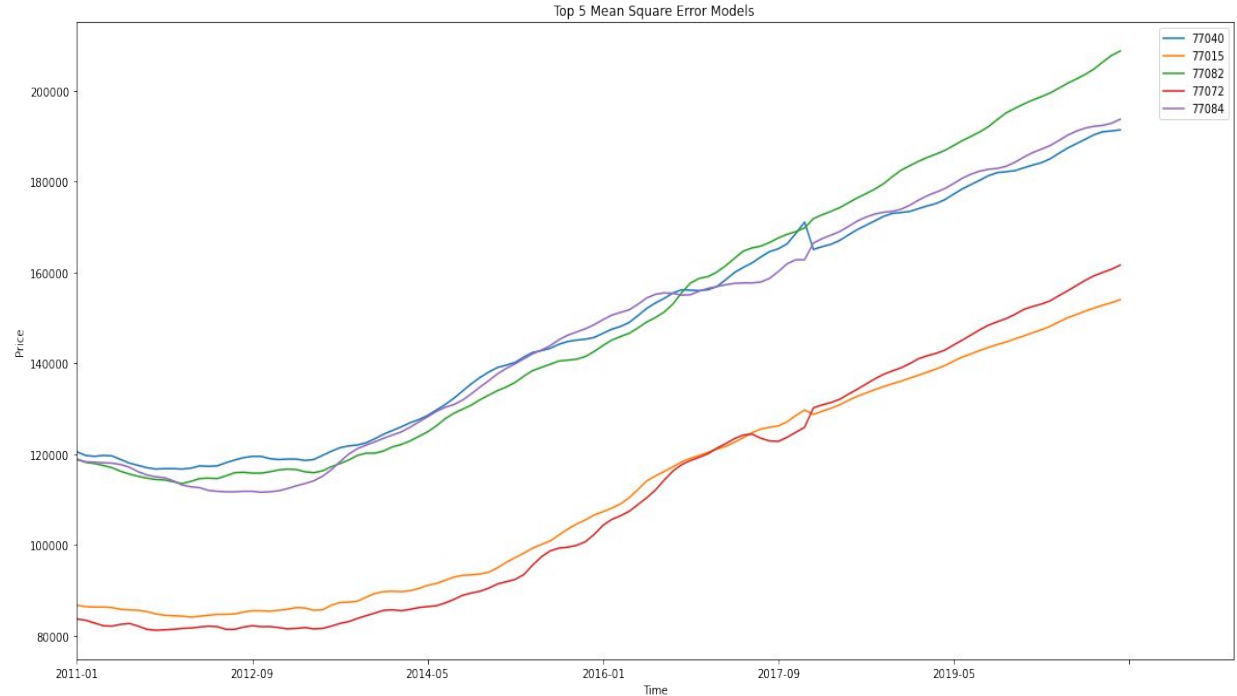
All zip codes have a positive trend through time.

Used SARIMAX to negate the trend affects and measure the auto regression and moving average.

Mean squared error to test model predictors.

Find relative increase in price from top predictors.

Results: Top 5 Models for Mean Squared Error for Predicted Mean and Confidence Interval



-77040

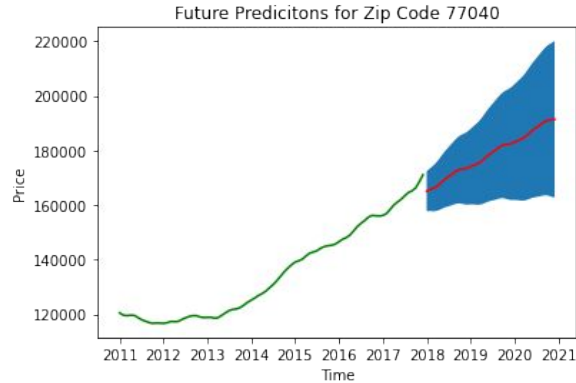
-77015

-77082

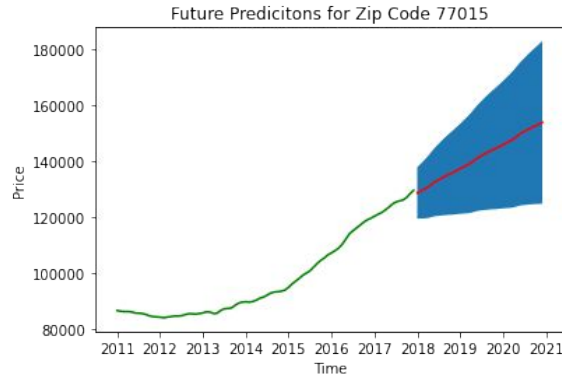
-77072

-77084

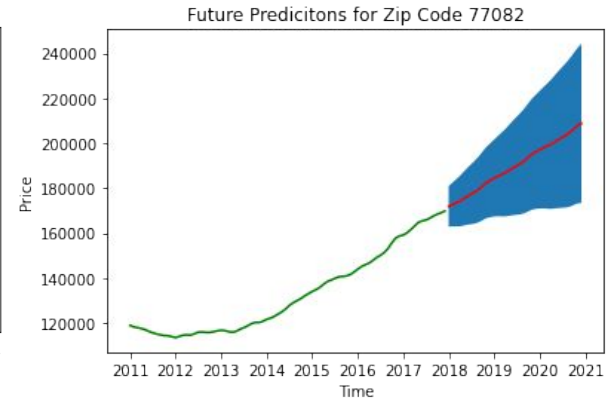
Top 3 Models for Mean Squared Error for Predicted Mean and Confidence Interval



-77040



-77015



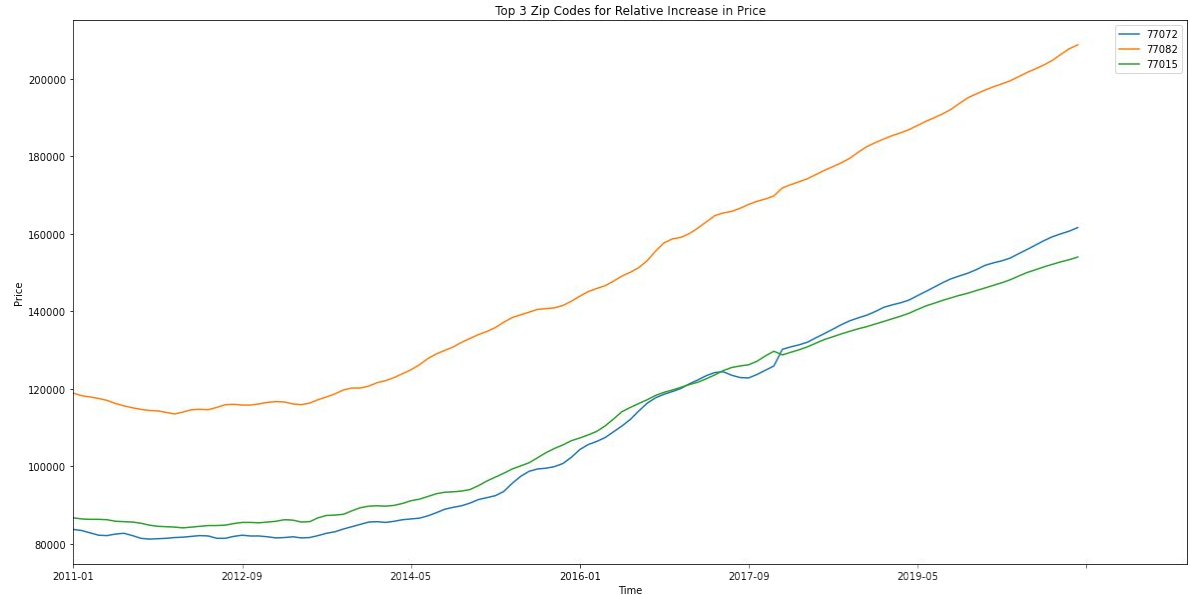
-77082

Top 3 Zip Codes for Relative Increase in Price

-77072: 65%

-77082: 59%

-77015: 58%



Conclusion

These zip codes are estimated have the most accurate models predicting 2018-2020, and most relatively profitable price increase.

-77082

-77015

-77072