NYC
Housing Market

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Understanding Your Goals

You are a risk averse investor, looking to make a sound investment in New York City.

In our predictions, we limited Error and Variability.
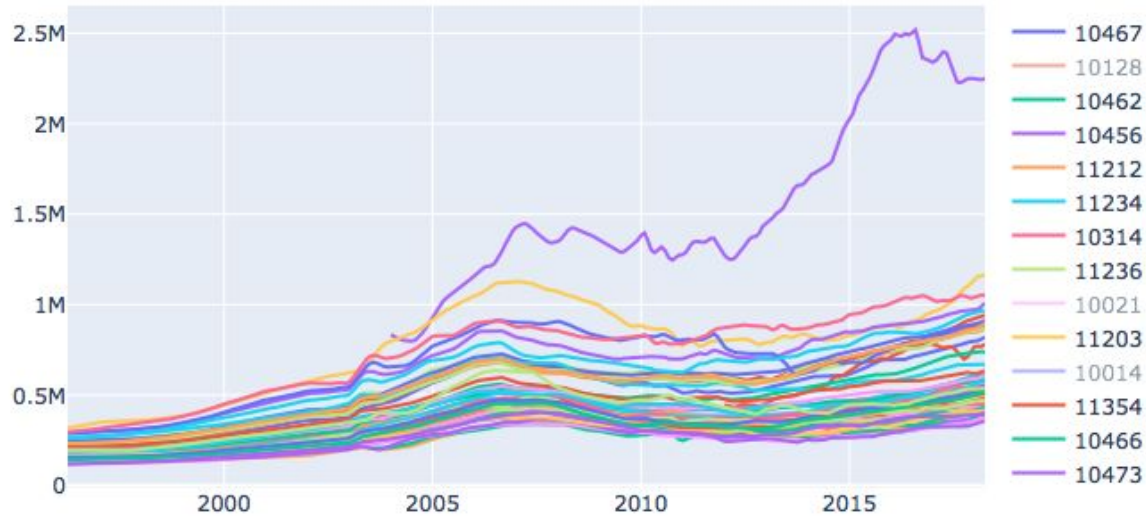
Description of Dataset

Description of NYC Dataset

➔ In our investment time series modeling, we have used gathered 68 Zip Codes throughout New York City

   ◆ 12 different Zip Codes in the Bronx
   ◆ 5 different Zip Codes in Brooklyn
   ◆ 3 different Zip Codes in Manhattan
   ◆ 36 different Zip Codes in Queens
   ◆ 12 different Zip Codes in Staten Island

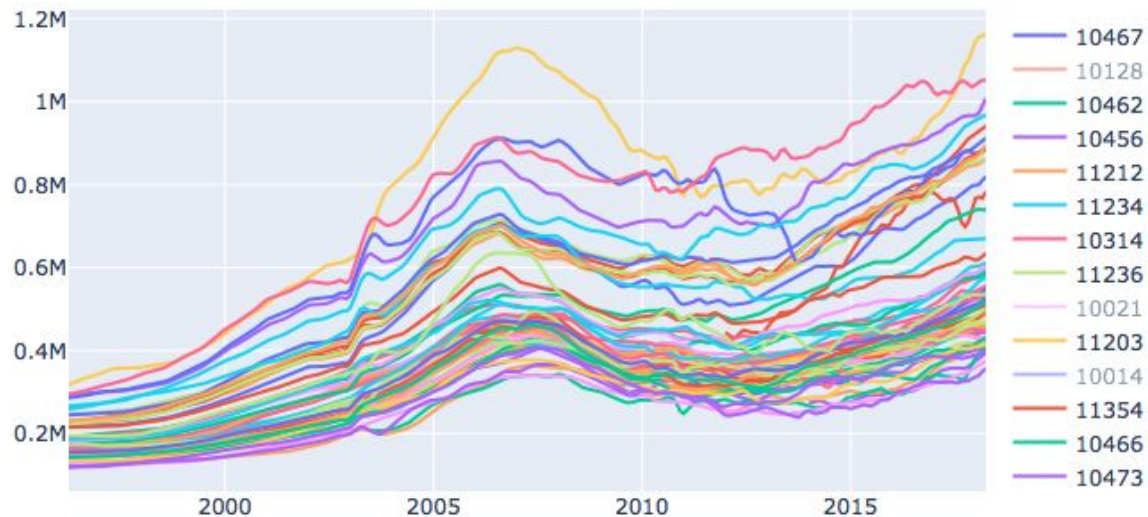➔ Our model was trained only for the past 10 years (April 2008-Present)

Description of NYC Dataset
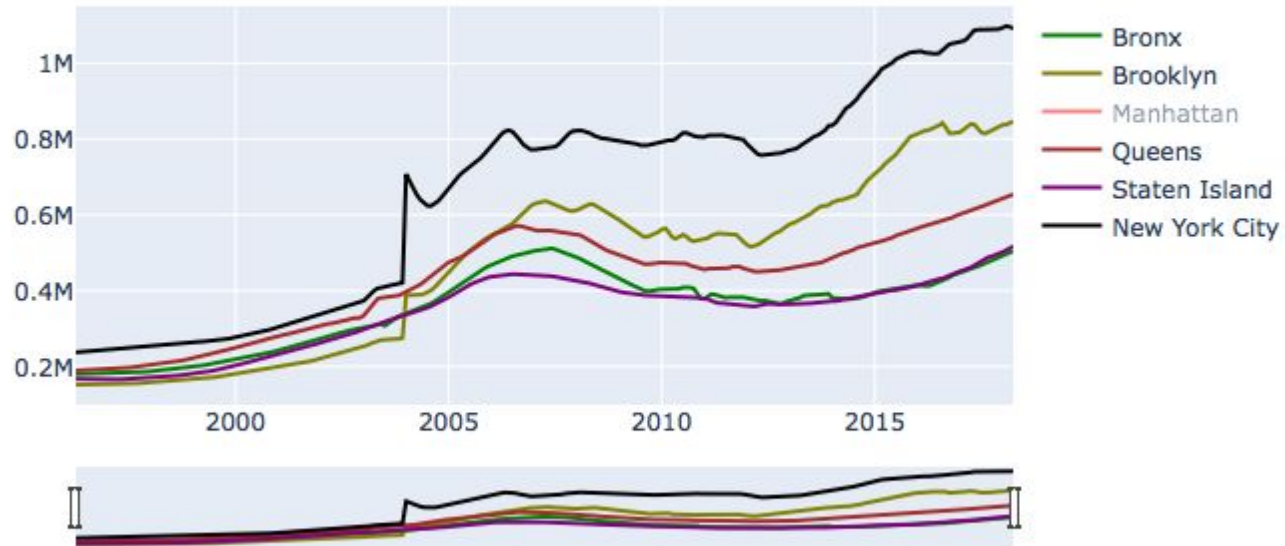
Description of NYC Dataset

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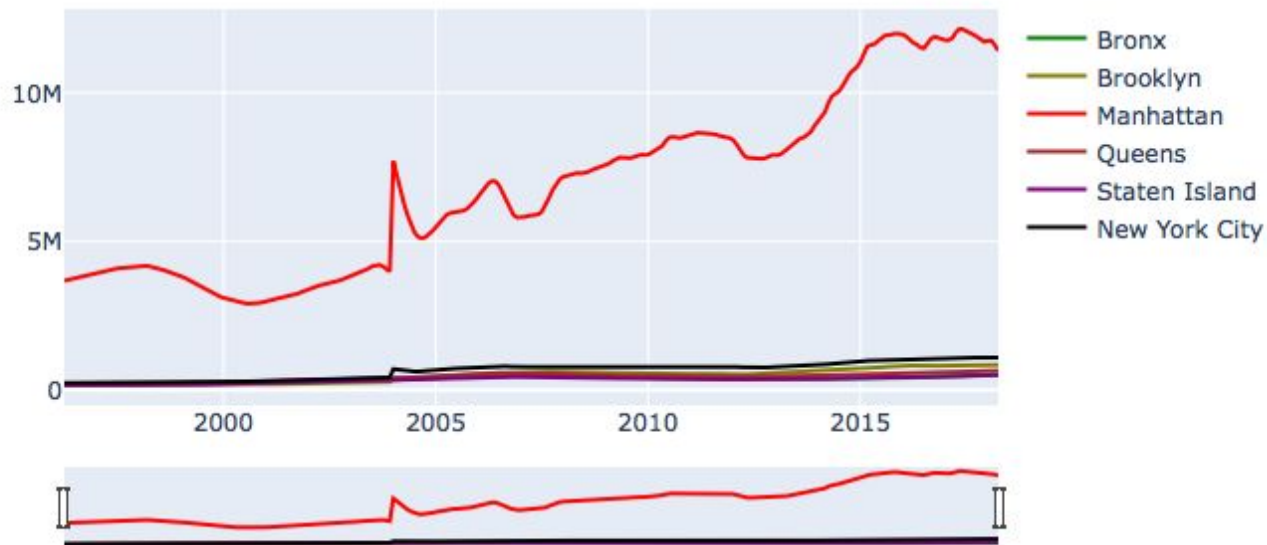
Home Value Index

New York City Home Value Index

Home Value Index

New York City Home Value Index

Rise of Luxury Apartments
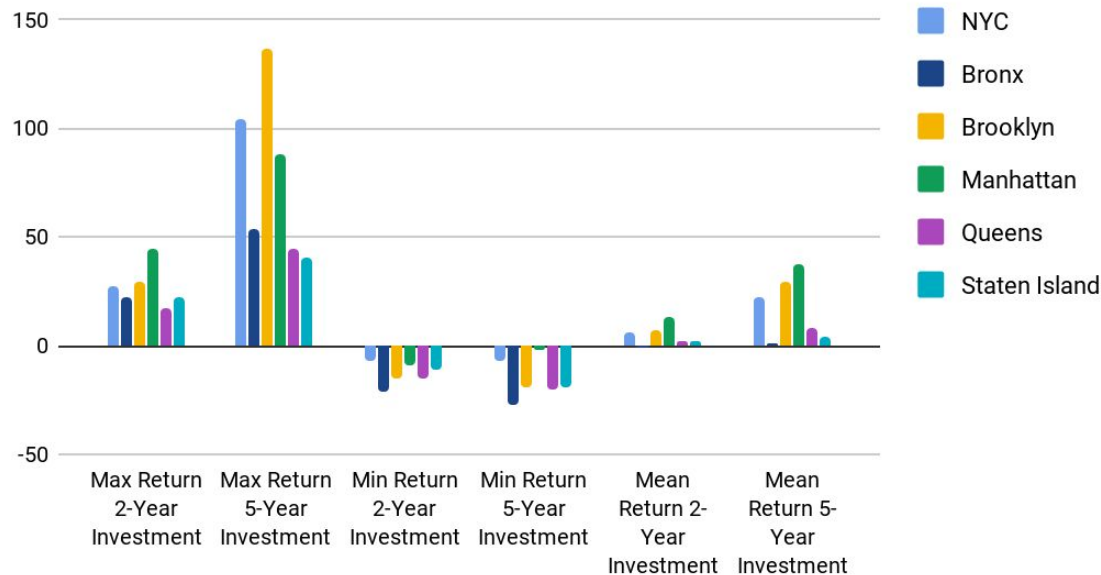

Manhattan Home Value Index

Brooklyn Home Value Index

Historical Return on Investment
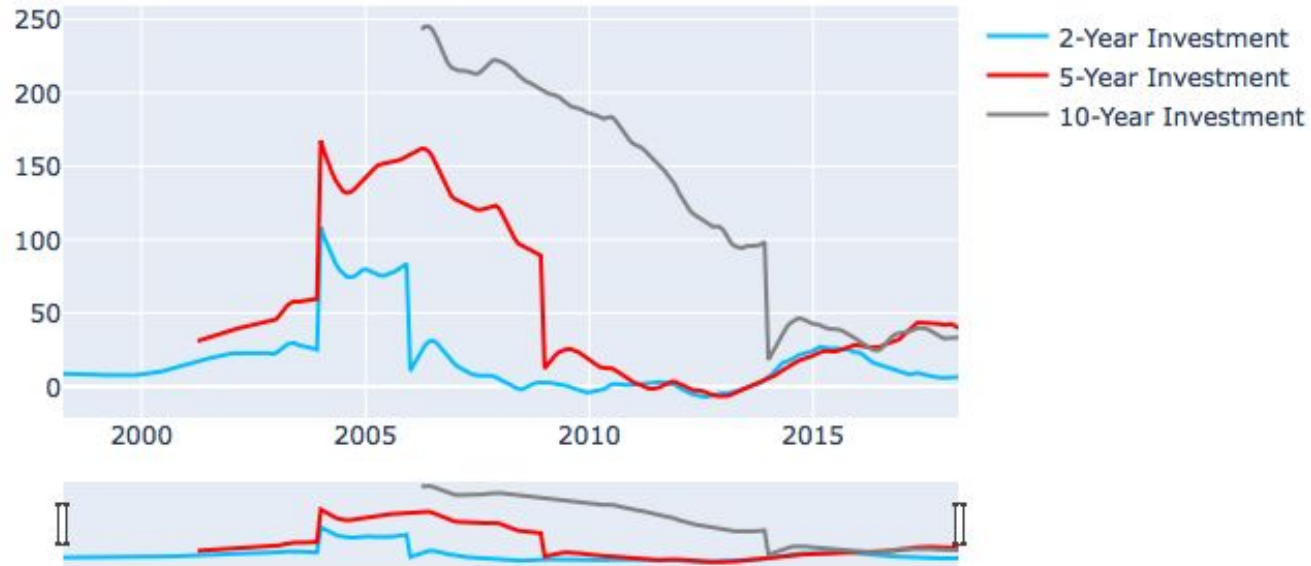
Historical Return on Investment

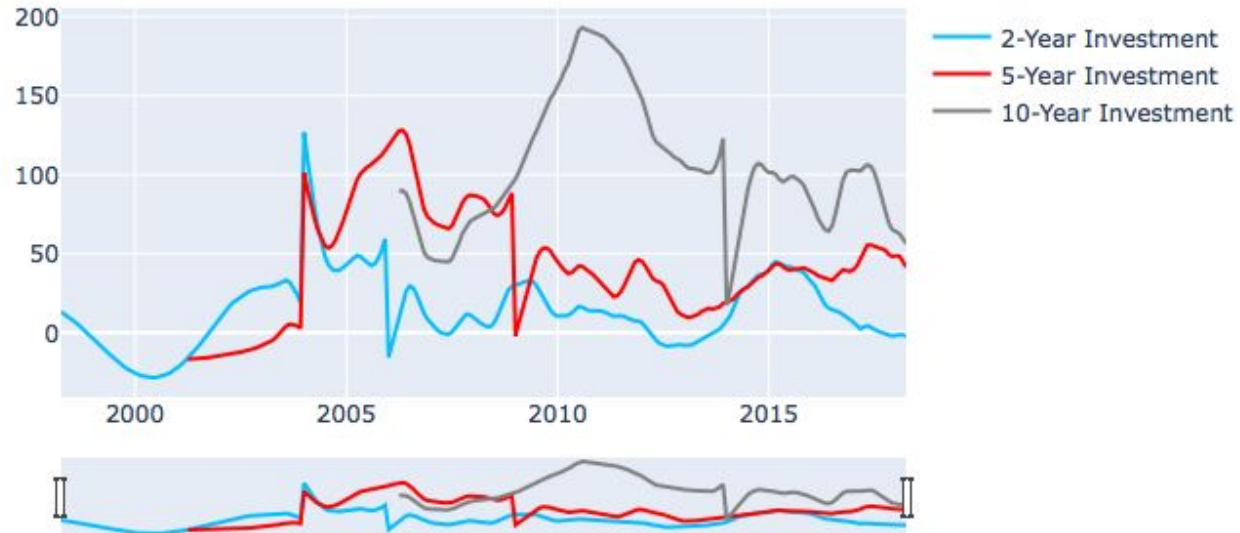Historical Return on Investment

We calculated

Historical Return on Investment

New York City Return on Investment

Historical Return on Investment

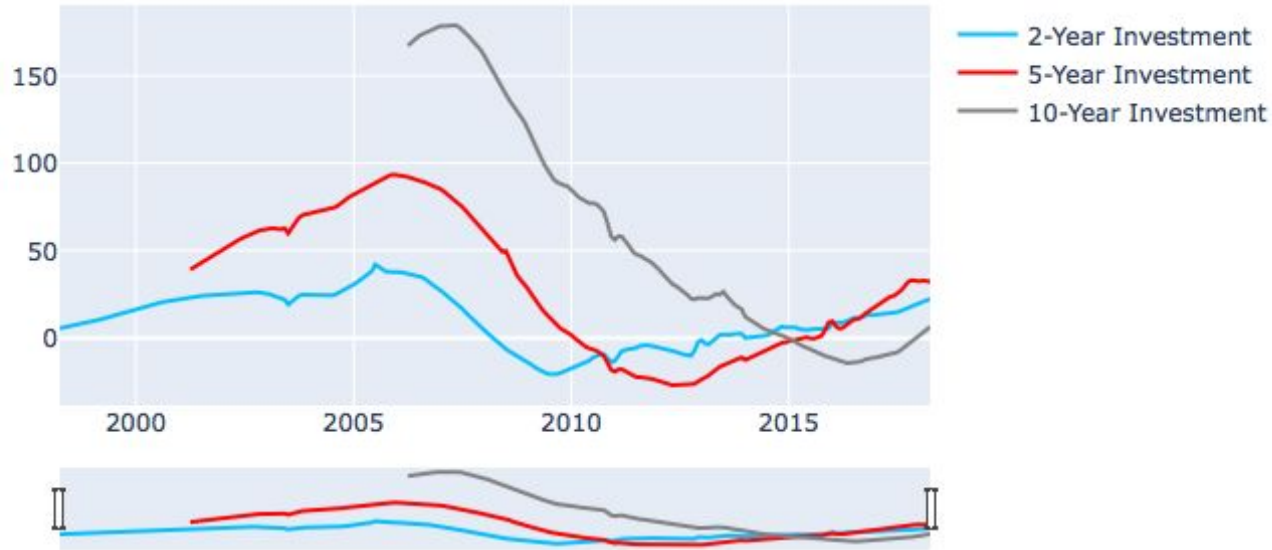Manhattan Return on Investment

Historical Return on Investment

Brooklyn Return on Investment
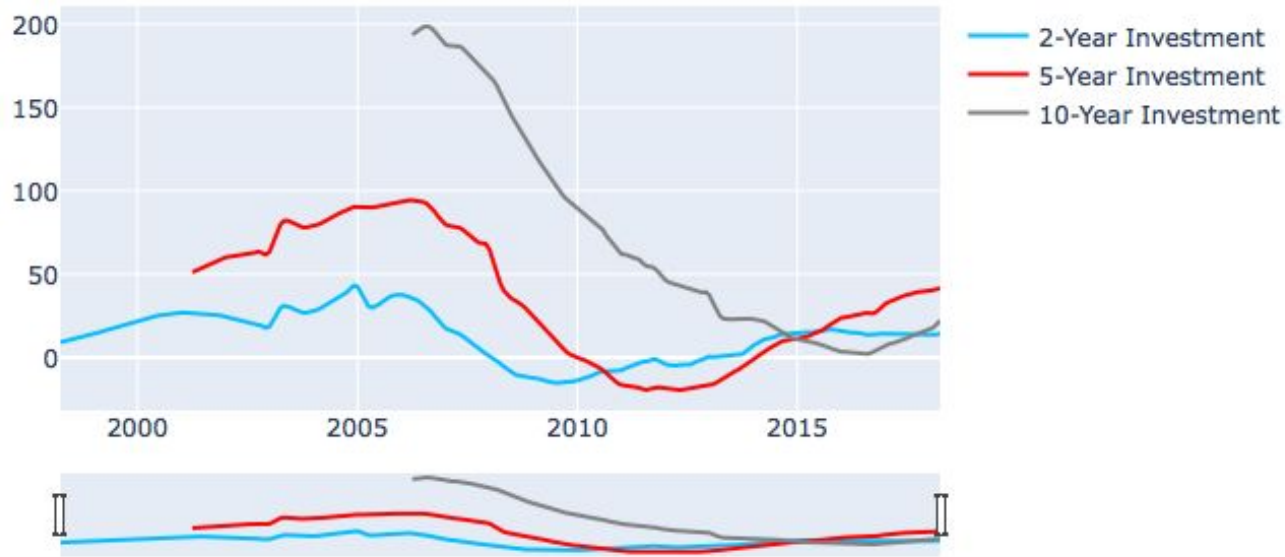
Historical Return on Investment
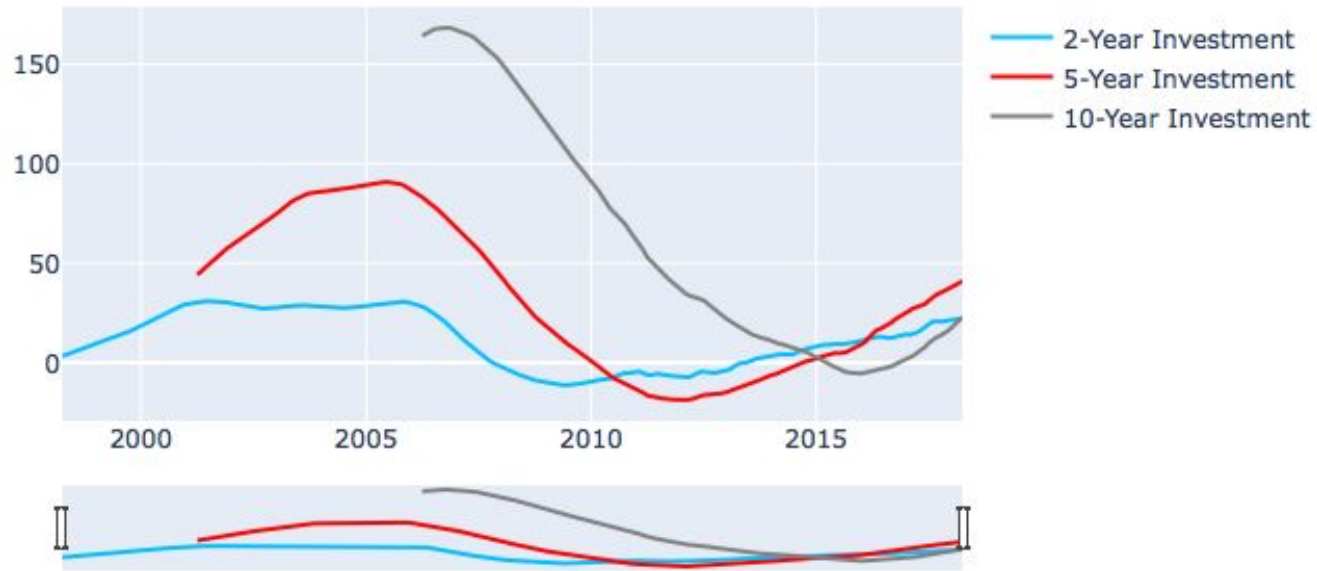

Bronx Return on Investment

Historical Return on Investment

Queens Return on Investment

Historical Return on Investment

Staten Island Return on Investment

Findings

5 Best Zip Codes

2-Year Investment Forecast from 04/2018-04/2020

Legend:
- 10456
- 10305
- 10304
- 10307
- 10314

Categories:
- Forecasted Percent Return
- Maximum Forcasted Percent Return
- Minimum Forcasted Percent Return
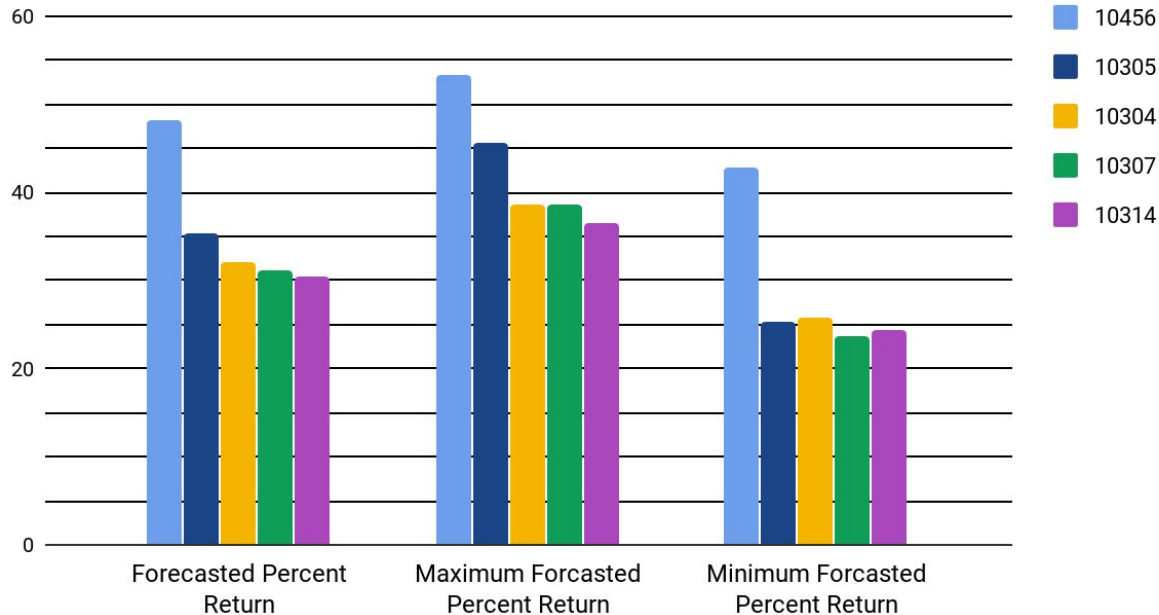
10456 - Bronx, NY

10305 - Richmond County, Staten Island, NY

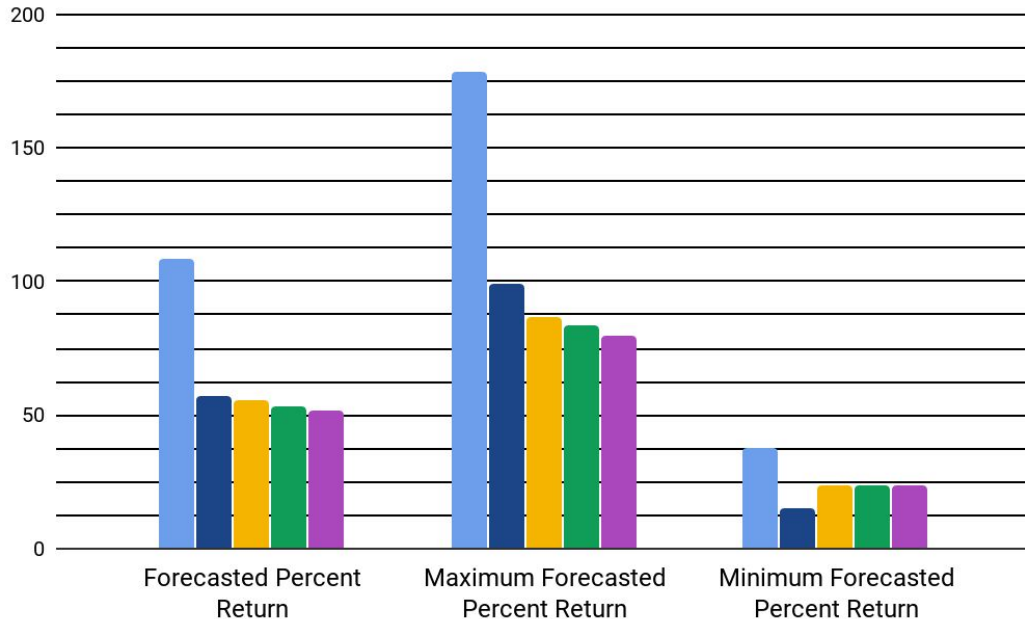10304 - Richmond County, Staten Island, NY

10307 - Richmond County, Staten Island, NY

10314 - Richmond County, Staten Island, NY

5 Best Zip Codes

5-Year Investment Forecast From 04/2018-04/2023

Legend:
- 10303
- 11364
- 11358
- 10309
- 10305

10303- Richmond County, Staten Island, NY

11364 - Oakland Gardens, Queens, NY

11358 - Murray Hill/Flushing, Queens, NY

10309 - Richmond County, Staten Island, NY

10305 - Richmond County, Staten Island, NY

Recommendations

We are looking for a secure, safe investment in NYC.

We notice that Mean Home Value in Manhattan has been decreasing, whereas most others have been increasing.

We also find that return on investment has been decreasing for Manhattan and Brooklyn.

We recommend to invest in the Richmond County Area of Staten Island over the next 2-5 years, and around Flushing, Queens over the next 2 years.

Further Work

Keep in mind, our forecasts were solely based on past monthly home values. I would look to add more features to better predict housing prices in the future.

I would look to improve the model by understanding better the trends and seasonality of each zip code. Therefore, a better understanding of the differencing levels for our model.

I would explore other time series models such as Facebook Prophet, or Vector Autoregression Moving-Average with Exogenous Regressors model.

Gathering more recent data so we can better reflect what is occurring in NYC today.

Thank You

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