Predicting Airbnb Prices

Why predict prices?

- Increases profits of renters
- Eases new users to the service
- Customers can compare prices to ensure they don’t get overcharged

Data Acquisition

- Dataset acquired from Kaggle
- Filtered and cut down to fit Foursquare API limit
  - Full, studio apartments
  - Located in NYC
  - Do not require a lease of more than 30 days
  - Have at least 3 reviews

Foursquare API

- 950 Regular Calls/Day
- 50 Premium Calls/Day
- 1 Photo per Venue
- 1 Tip per Venue

Type of model

- Regression model
  - RFR
  - Linear Regression
  - Ridge
  - Poly
  - Ridge
  - Logistic
  - GBR (best)
  - DTR (best)

Model Performance

Regression Model	Mean Squared Error	R Squared Score
Gradient Boosting Regresssor	1619.56	0.85
Decision Tree Regressor	2135.13	0.86

Conclusion

- More data
- More EDA
- Different subgroup of Airbnbs
- Different hyperparameters