Chicago Food Establishments

Diego Duque
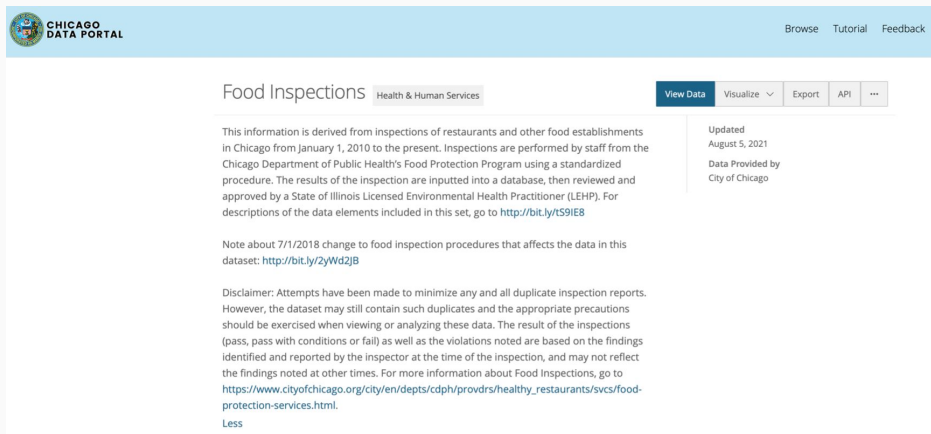
Goal

Interpret Chicago food establishment inspections

Data

City of Chicago

- 2010 - 2021 (updated daily)
- 17 features
- 224K inspections

Source: https://data.cityofchicago.org/Health-Human-Services/Food-Inspections/4ijn-s7e5

Total Inspections

Results

Count of Food_Inspecti..
2,462   116,211
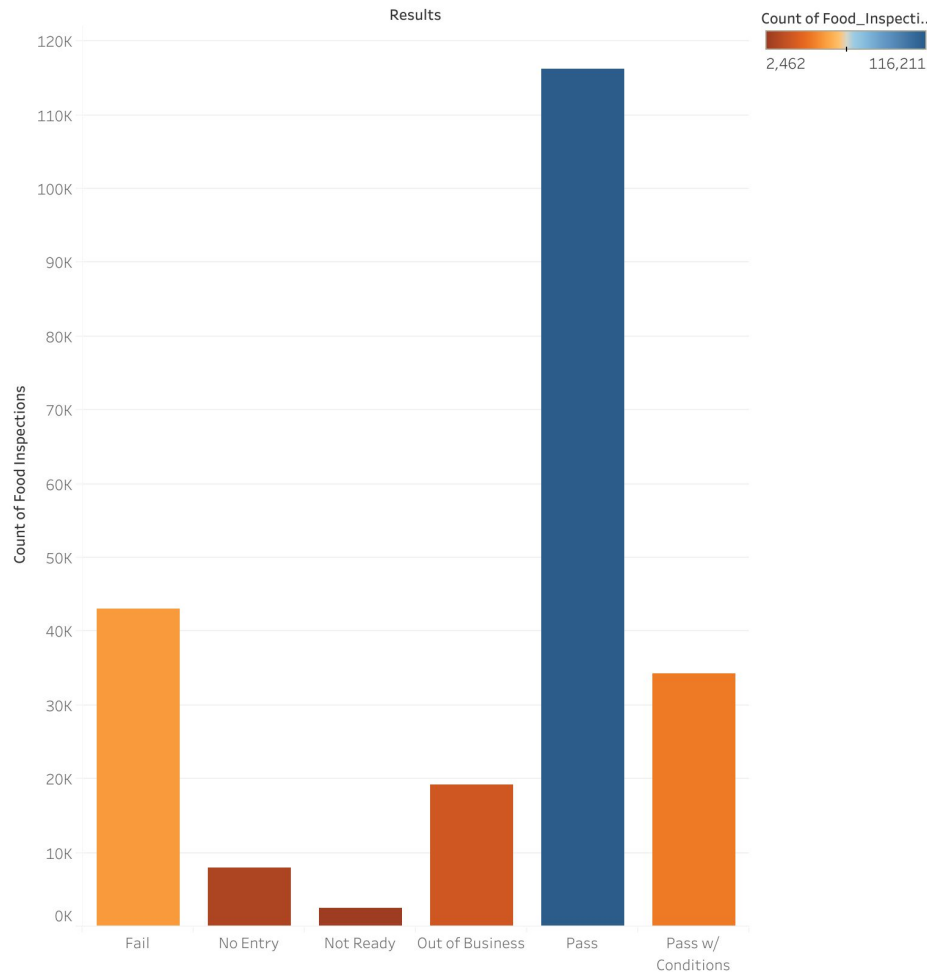
EDA

- Chart generated on **Tableau**
- Results of all inspections 2010 - 2021

Results will be our **target**

1. Pass
2. Fail
3. Pass w/conditions

Random Forest

Random Forest confusion matrix

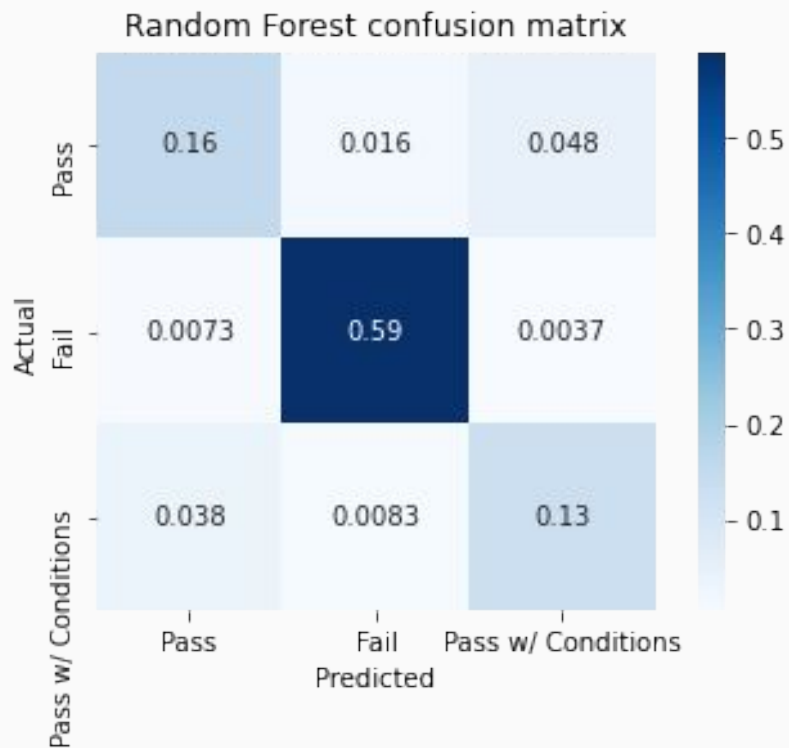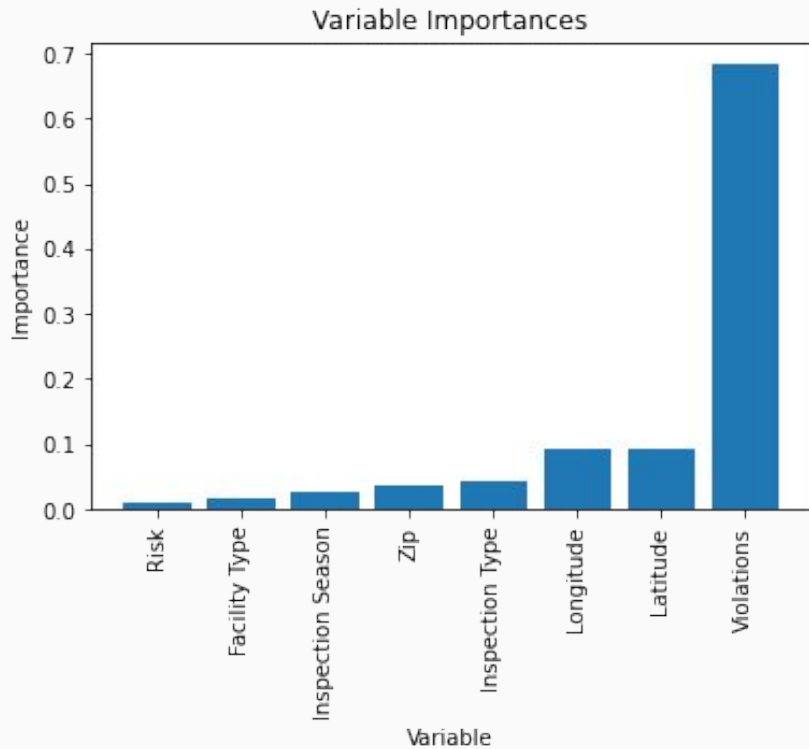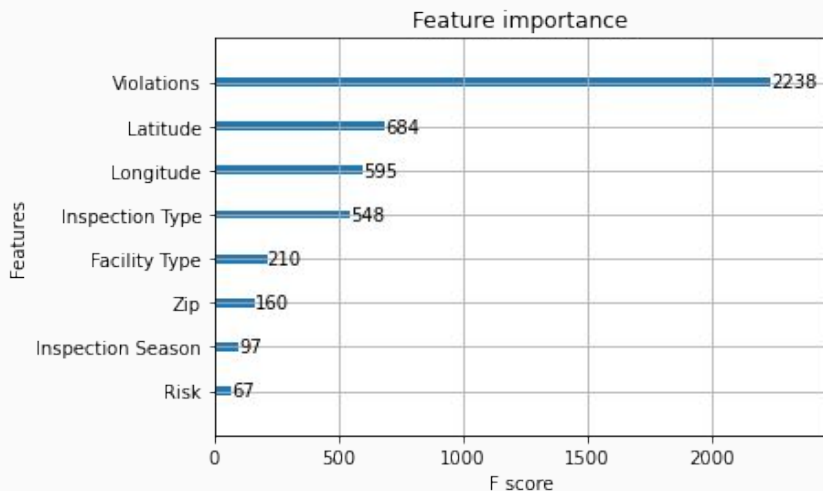Random Forest
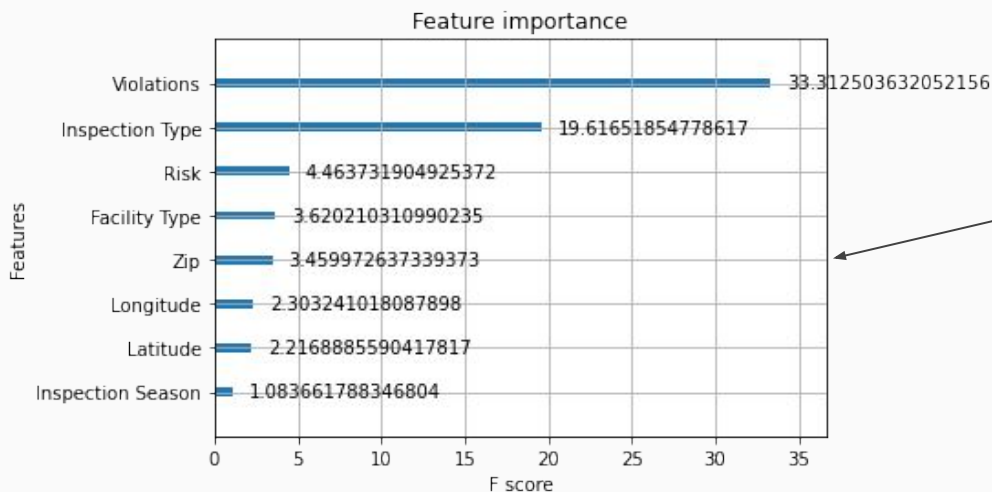
XGBoost

Linear Regression (benchmark)	0.6224
Random Forest (Benchmark)	0.5212
XGBoost (Validation)	0.5217
XGBoost (Test)	0.5097

XGBoost

Feature importance

Default method

XGBoost

Gain method

Future work

- Combine with other dataset (311 complaints, weather)
- More tune on Random Forest

Thanks!

Diego Duque

Remember to get vaccinated!