

PEACE ZIGAH

Bringing data to life through story-telling

Background:

- 10+ years experience in Telecommunication, Finance & Retail

Based:

- Toronto, Ontario





FLIGHT ESTIMATOR

FLIGHT PRICE PREDICTION PROJECT

CAPSTONE TOPIC

Can flight prices be predicted using machine learning models and techniques?

THE DATA SOURCE



WHO AM I

THE TOPIC

THE DATA

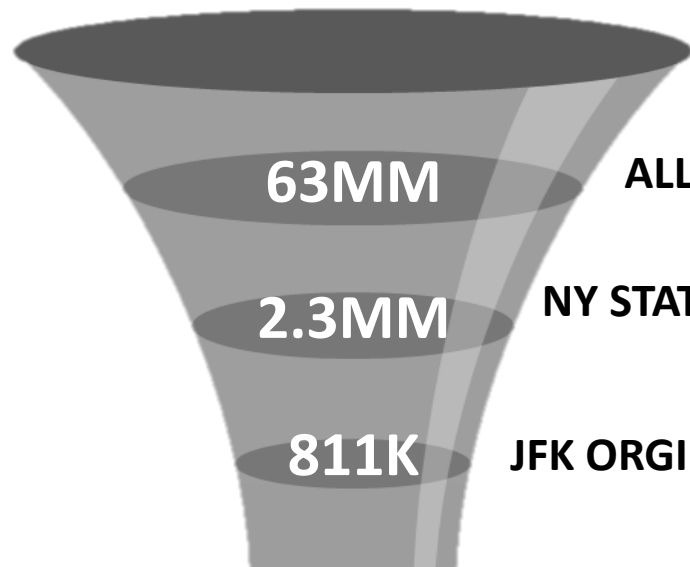
MODELLING

RESULTS

EDA & PREPROCESSING DATA



DATA FUNNEL



63MM

ALL US DIRECT FLIGHTS

2.3MM

NY STATE ORIGIN DIRECT FLIGHTS

811K

JFK ORIGIN DIRECT FLIGHTS



Amazon S3



Amazon SageMaker

MODELLING



REGRESSION SUPERVISED LEARNING

R^2 :

Train: 13%
Test: 12%

Train: 51%
Test: 45%

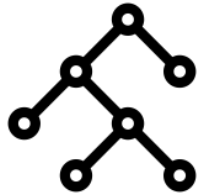
Train: 50%
Test: 46%

Train: 32%
Test: 32%

Train: 5%
Test: 5%



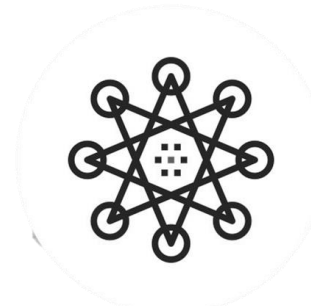
Linear
Regression



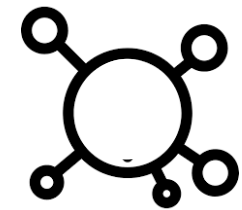
Decision Tree
Regressor



Random Forest
Regressor



Gradient Boosting
Regressor



AdaBoost
Regressor

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RESULTS



REGRESSION SUPERVISED LEARNING

R²: Train: 50%
Test: 46%



Random Forest Regressor

2020

+7% performance improvement

OUTLIERS

+14% performance improvement

RESULTS



NEXT STEPS



Interactive Data Visualizations



New Travel Destinations

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THANK YOU

 **PEACE ZIGAH**

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