

Flight Delay Prediction Project

Data Analysis, EDA, Classification &
Regression

Data Analysis

- • First of all I Loaded 'Airline_Delay_Cause.csv' dataset.
- • Then I Analyzed structure and contents of the dataset.
- • Checked for missing values and cleaned data as necessary.
- • Prepared features for analysis and modeling.

Exploratory Data Analysis (EDA)

- • Plotted various graphs to understand relationships between variables.
- The delay is due to the carrier , weather , nas , security , late aircraft .
- • Visualized delay causes and frequency.
- • Explored correlation between delay time and features like carrier, weather, NAS, security, and late aircraft.

Classification Model

- • Built a classification model to predict if a flight will be delayed.
- • Used Random Forest Classifier.
- • Evaluated model with accuracy score and confusion matrix.
- • Generated classification report for performance metrics.

Regression Model

- • Built a regression model to predict how much a flight will be delayed.
- • Used Linear Regression technique.
- • Evaluated model using R^2 score and Mean Squared Error (MSE).

- This concludes the presentation on flight delay prediction using data analysis, EDA, classification, and regression modeling.

THANK YOU