



Predicting Flight Delays

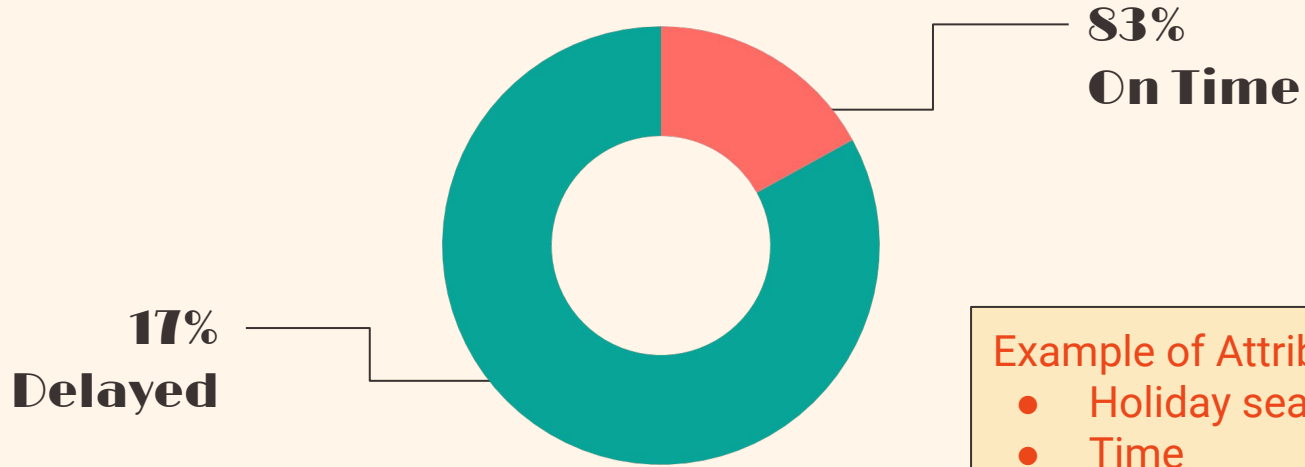
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Context & Background

- Flight Delays
- Model as ATC Supplemental Planning Toll



Data Breakdown



Example of Attributes:

- Holiday season
- Time
- Weather conditions

Data from 2016 - 2018

Process Outline

01

Data Pulling



02

Data Processing

03

**Model
Exploration**

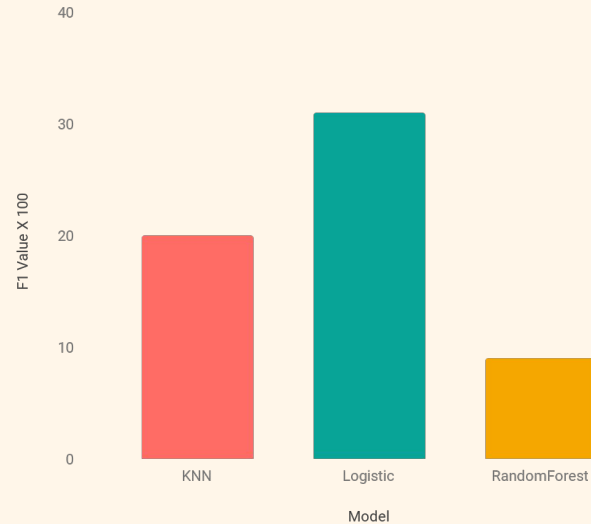
04

Finalizing Model



Initial Model Comparison

F1 Values By Model



● **KNN - .2**

● **Random Forest - .01**

● **Logistic- .3**

Final Logistic Model



- Precision: .23
- Recall: .69
- F1: .35
- Weighted Classes [1:5.3]

Test Predictions



Flight #3332

SkyWest Airlines

Severe Weather

T/F



Flight #609

American

Light Weather

F/F



Flight #2303

Delta

Light Weather

T/T



Future Work

- Interactive Tableau Dashboard
- Modeling Varying “delay” levels
- Boosted Gradient Models