



# Flight Forecast



Predicting Cancellations and Delays  
out of Chicago



# Problem

- Airlines have no incentive to provide accurate flight delay information
- This app gives the user the power to make an educated decision when choosing their flights



# Demo



# Data

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- Data is provided by the Bureau of Transportation Statistics
- Filtered to 2018 data for flights leaving from Chicago
- Variables include:
  - Month and day of travel
  - Airport
  - Destination State
  - Airline



# Algorithm

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## Delays

Basic linear regression

Original Goal: average residual within 10 minutes

Result: average residual within 26 minutes  
(median 1.6 minutes!)

## Cancellations

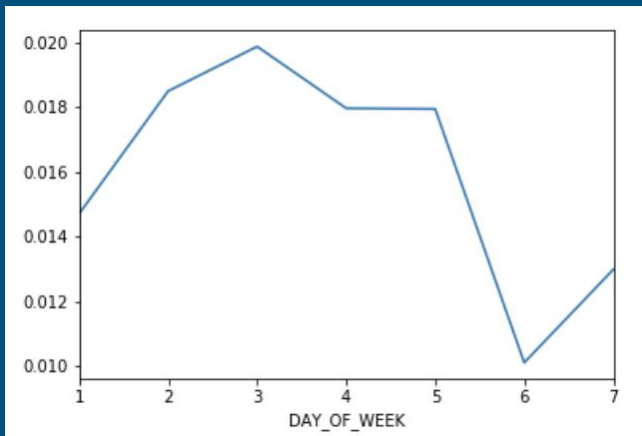
Logistic regression

Original Goal: Misclass rate of <20%

Result: Misclass rate of 2.2%  
(with trivial solution)

# Insight

- Wednesday had the highest chance of cancellations
  - weekends had the lowest



- Flying out of Hartford CT was a nightmare in 2018
  - 10% cancellation rate!





# Thank You! Questions?



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