OneSky: Predictive Analytics for Dynamic Pricing in Private Aviation

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**Goal:**
- Obtain proper pricing by predicting flight demand using dynamic pricing tools

**Motivation:**
- As a business, flight pricing is crucial
- Current process is manual which is time-consuming

**Methodology:**
- Normalize data
- Create coefficients for day of week and month
- Identify outliers
- Categorize events based on flight trends
- Create coefficients for each event category
- Combine all coefficients to create prediction model
- Plot original data against prediction model to visualize accuracy
- Manually manipulate category coefficients to improve accuracy
- Apply prediction model to 2017 original data

Figure 1: Components of dynamic pricing

Figure 2: All flight data points in 2018 provided by OneSky. Total number of flights for 2018 was 1,693,532.

Figure 3: Original flight data for 2018 plotted against prediction model with event coefficients applied

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