

Airline Passenger Satisfaction

Team C3

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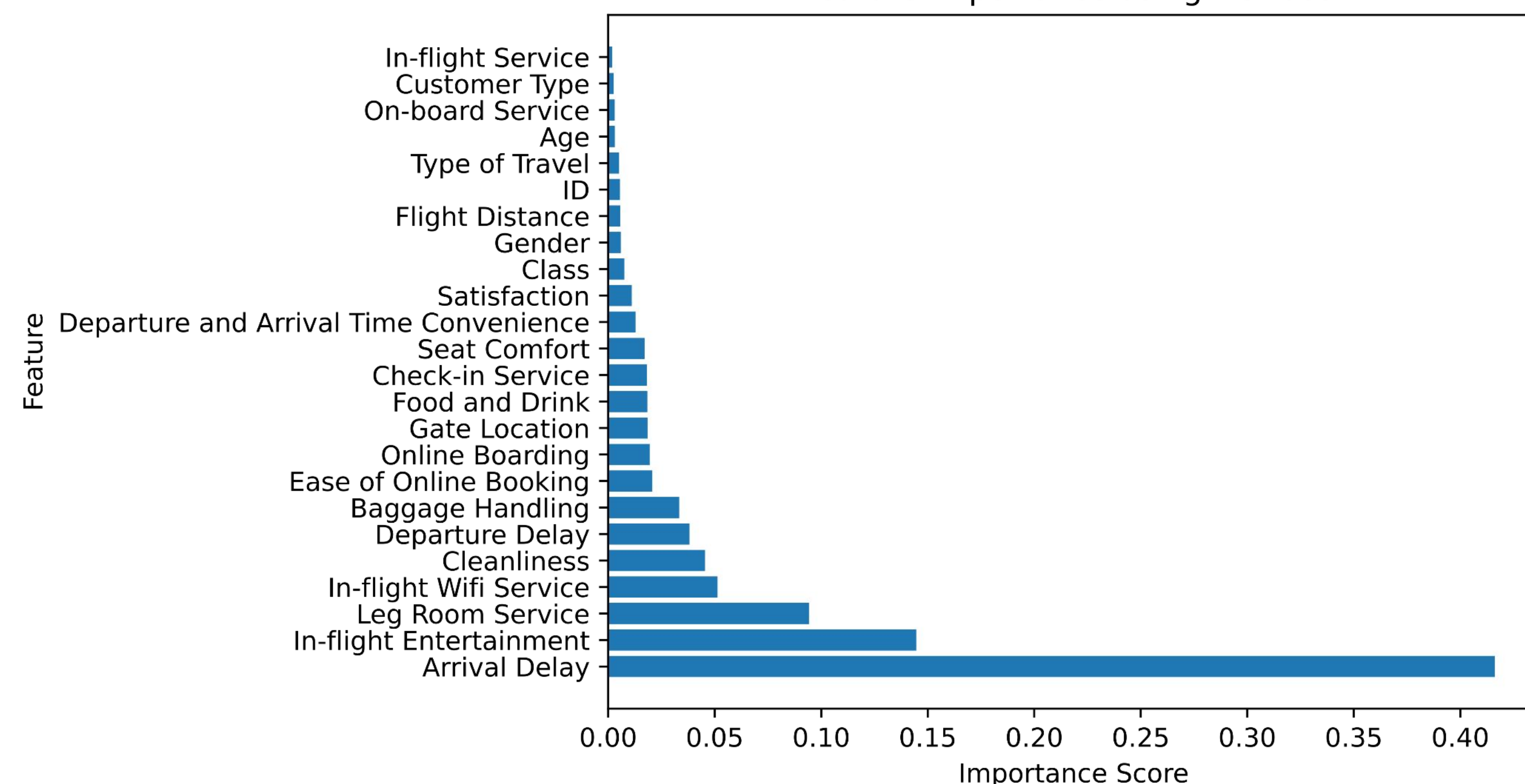
Introduction

The specific project was chosen because airlines and airports are responsible and interested in good satisfaction of its customers and should be aware of the aspects that matter and impact the experience the most.

Goals

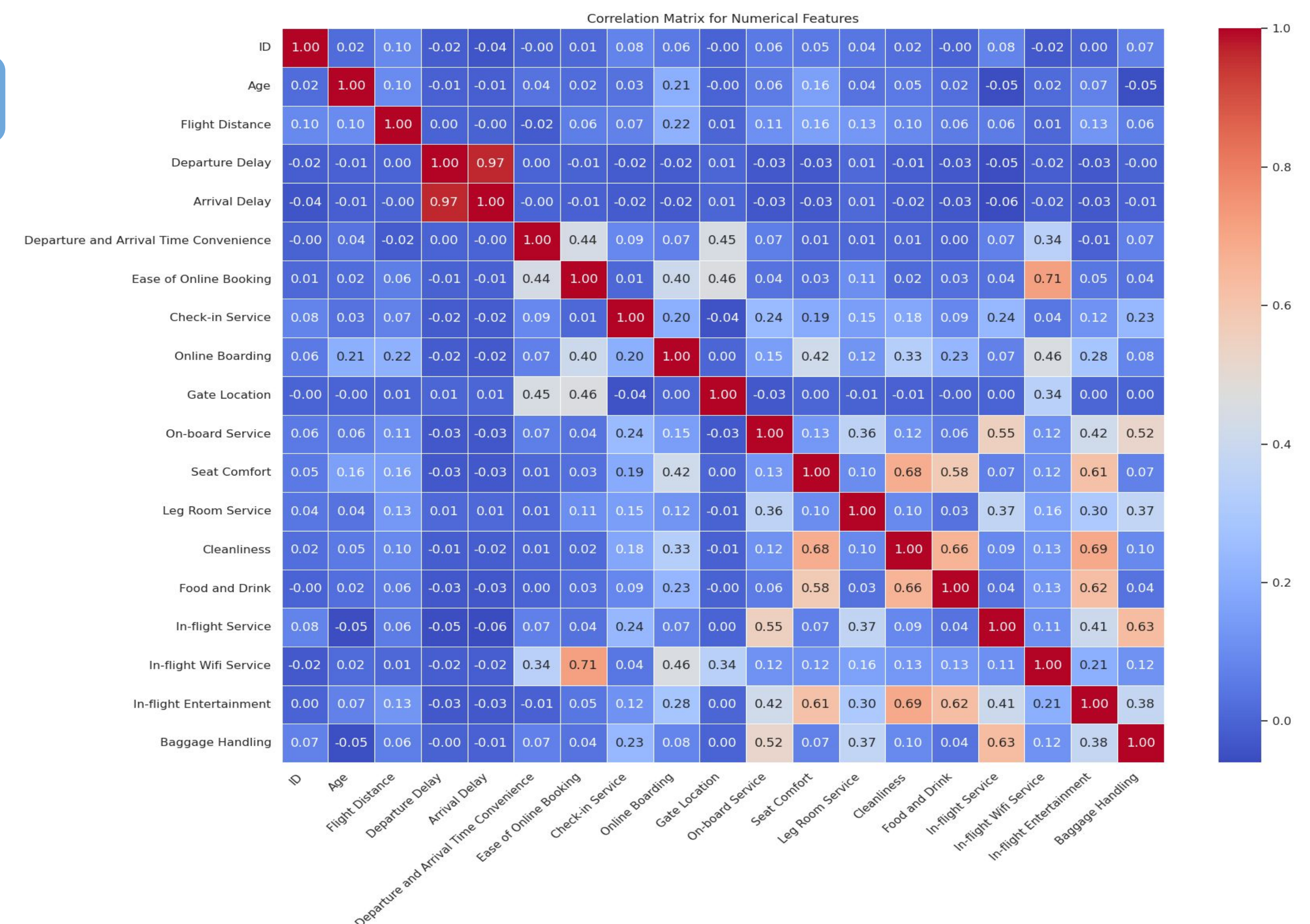
- Gain insights into the data by exploring key features and visualizing patterns.
- Understand which features are impacting the overall satisfaction scores the most
- Generate insights into the typical profile of a satisfied customer, which can help airlines target improvements toward underrepresented or dissatisfied groups.
- Find the best machine learning model for predicting whether a customer is satisfied or not based on various attributes

Feature Importance using XGBoost



Data

Public dataset containing customer satisfaction scores from over 120,000 airline passengers.



Best machine learning model

Best Model: XGBoost (highest accuracy and excellent F1-scores for both classes)

Close Second: Random Forest (almost identical performance to XGBoost)

* If computational efficiency is a concern, Random Forest might be preferable, as it's generally faster to train than XGBoost. However, for maximum performance, XGBoost is the winner