Airline Customer Satisfaction

Classification Modeling to Predict Customer Satisfaction

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Summary

Construct classification model to predict customer satisfaction, & glean insight into the following elements of the customer experience:

- Online boarding
- Wifi service
- Travel class

Outline

Business Context

Data

Modeling results

Recommendations

Limitations/ Further Exploration

Thank you

Business Context

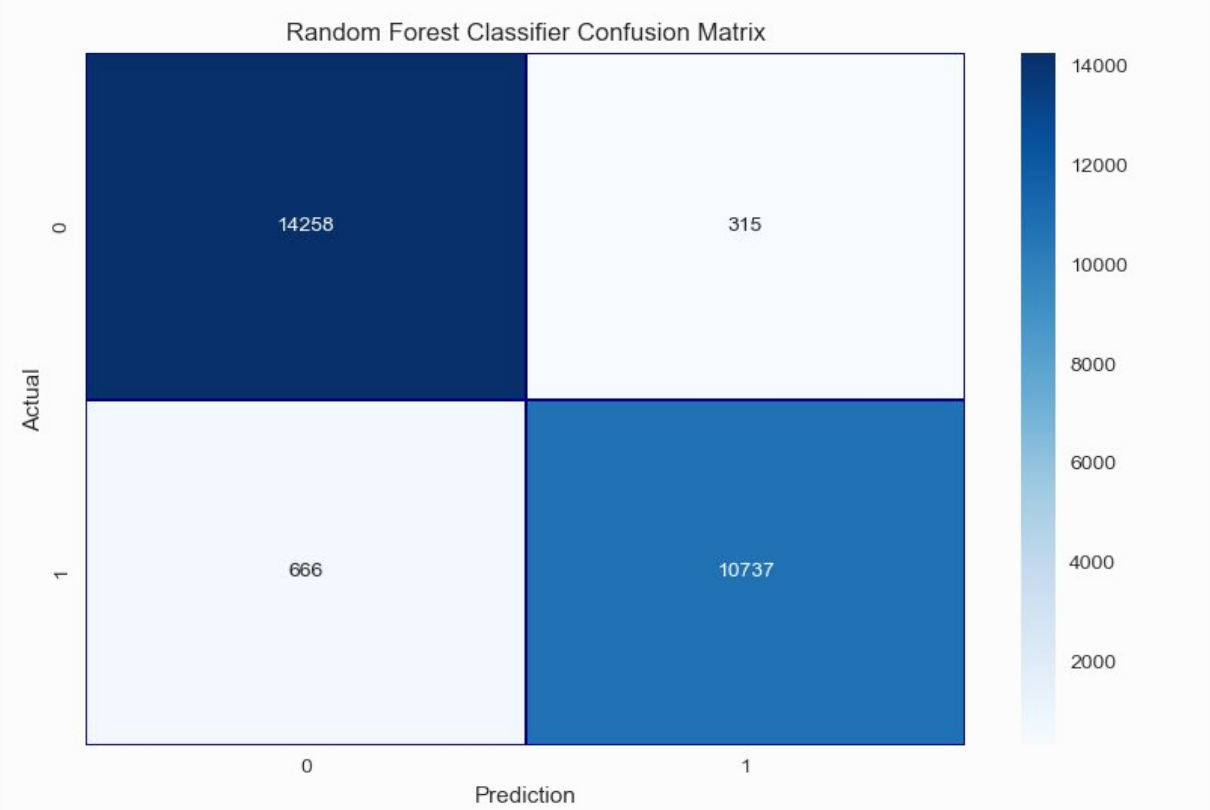
A satisfied customer is a repeat customer.

- Identify customers who are likely to be dissatisfied
- Devise & implement targeted policies to avoid dissatisfaction

Data

- Airline passenger survey
- ~130k records (80/20 train/test split)
- Mostly customer ratings
- Some objective descriptors

Modeling Results

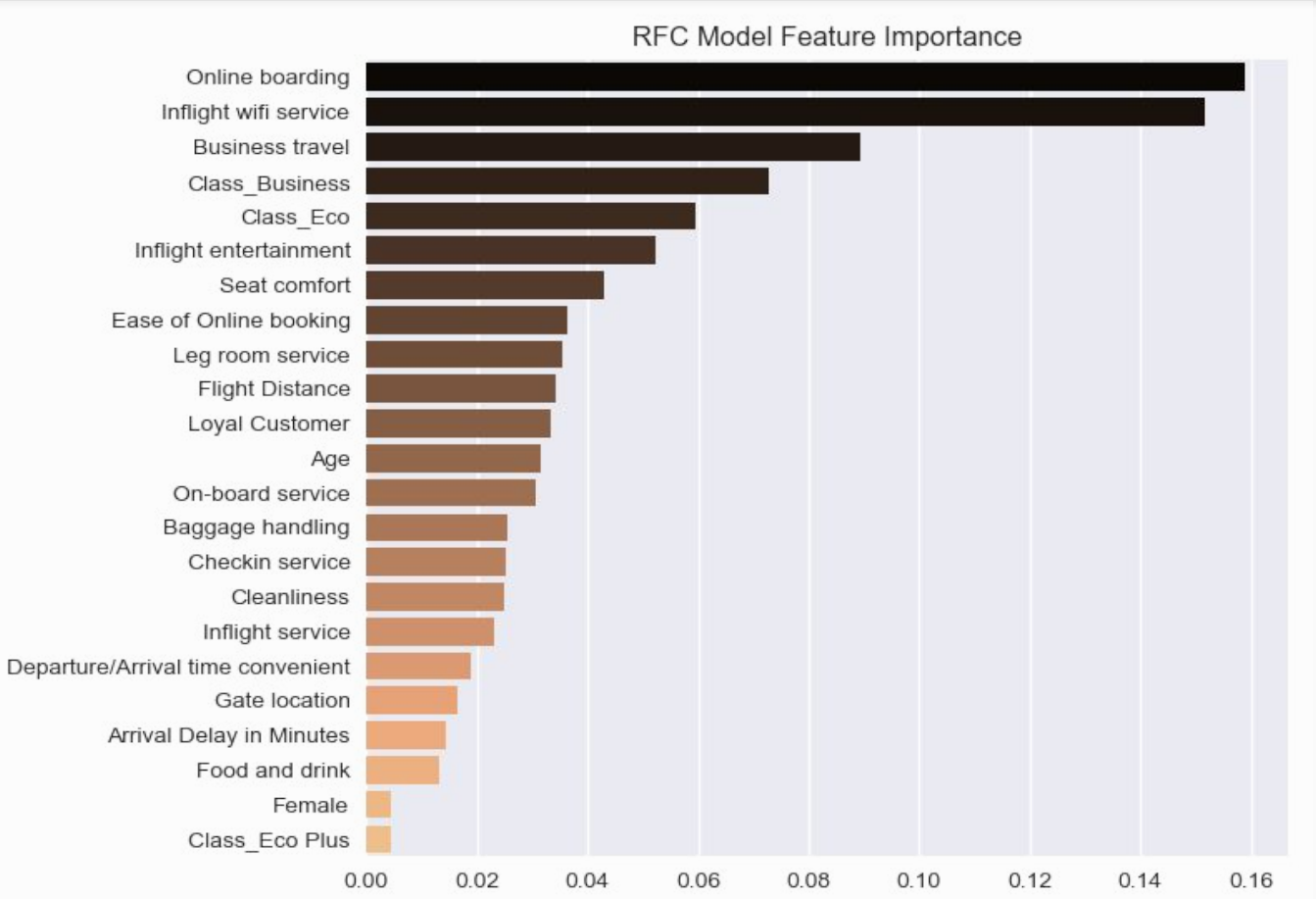


Class 0 (Dissatisfied)

- Accuracy - .96
- **Recall - .97**
- Precision - .95

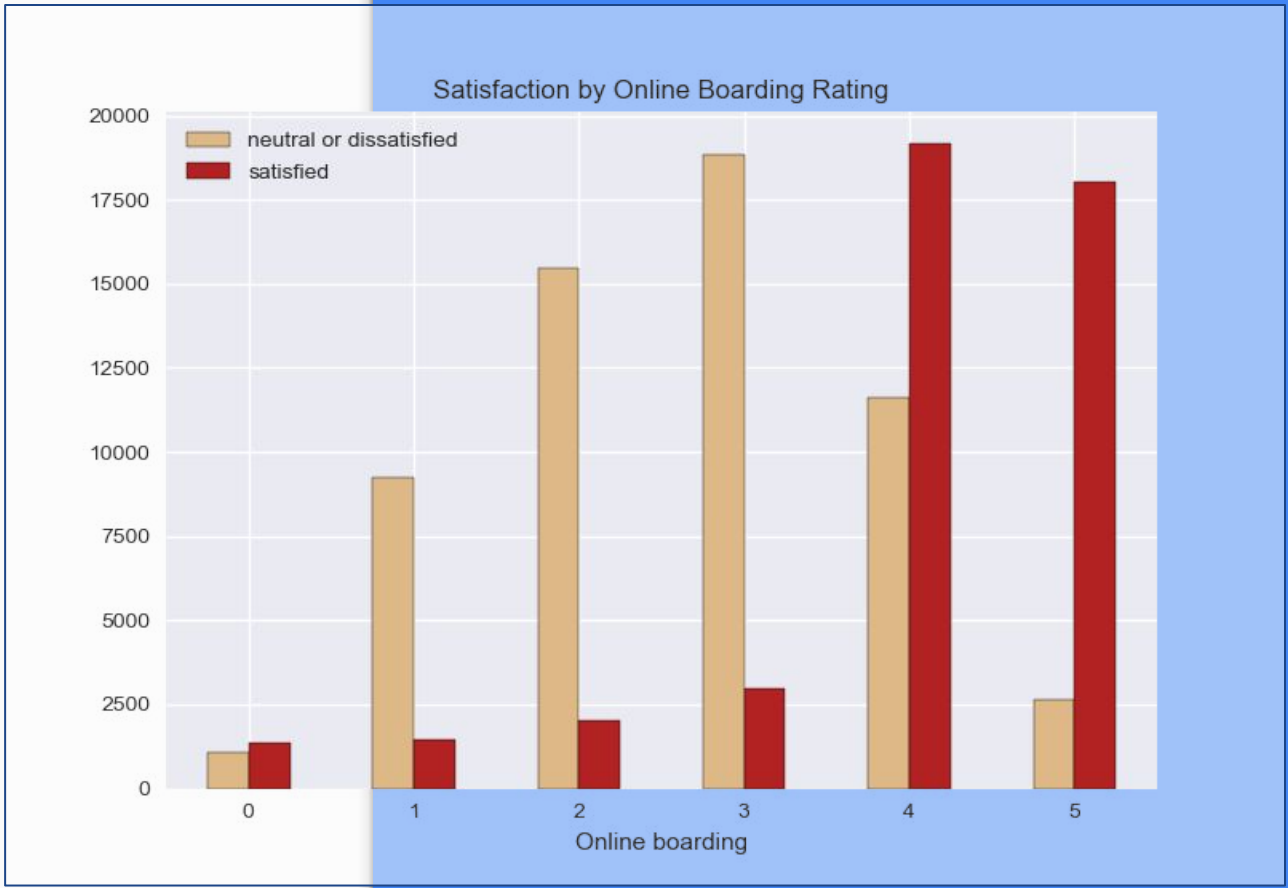
Modeling Results

Feature Importance



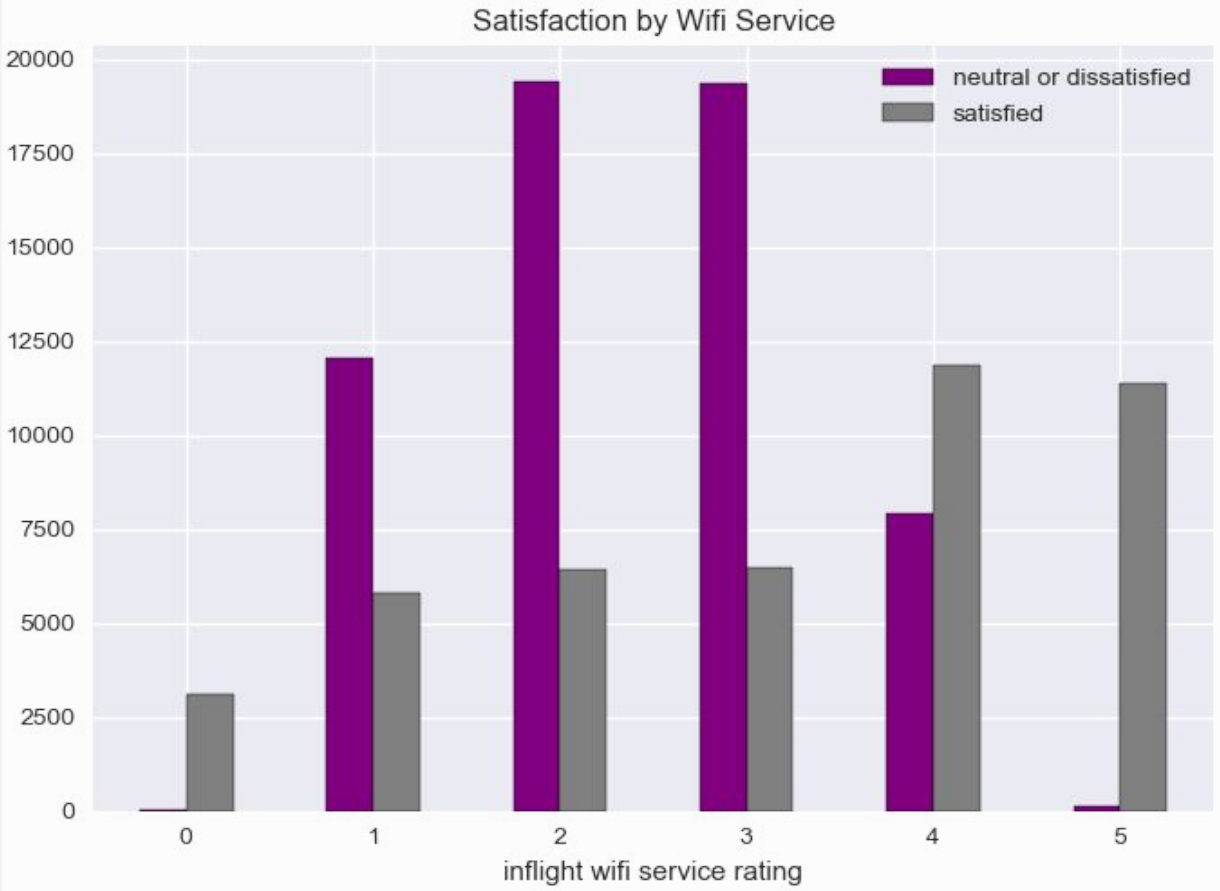
Online Boarding

Satisfaction jumps with high rating



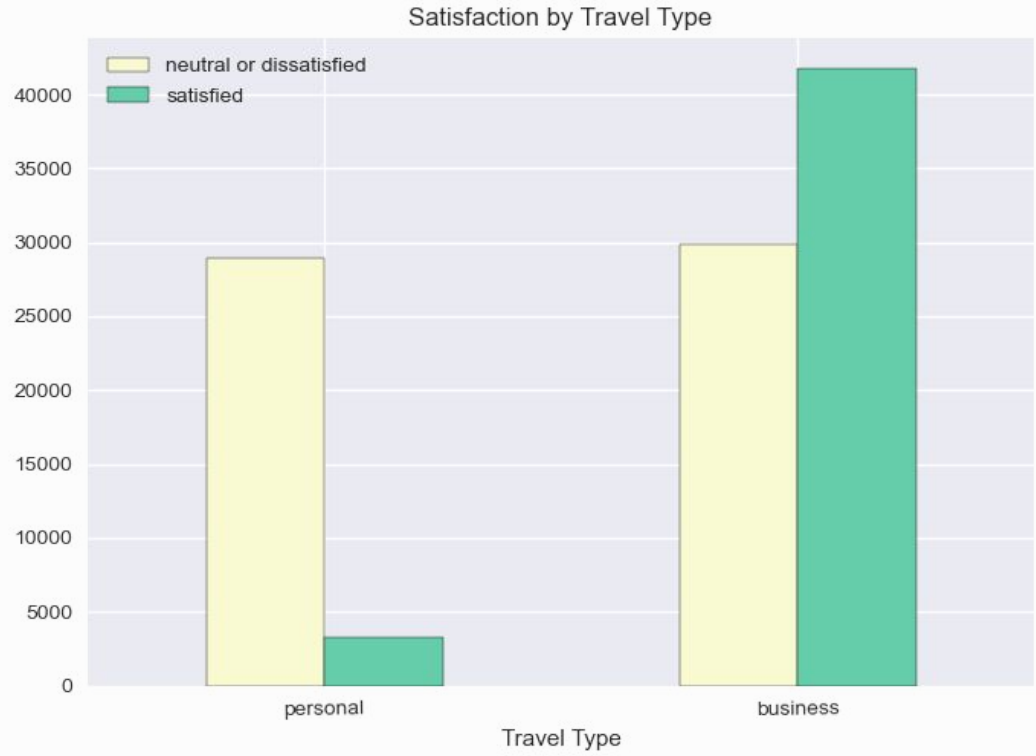
Inflight Wifi

High rating = Satisfied →

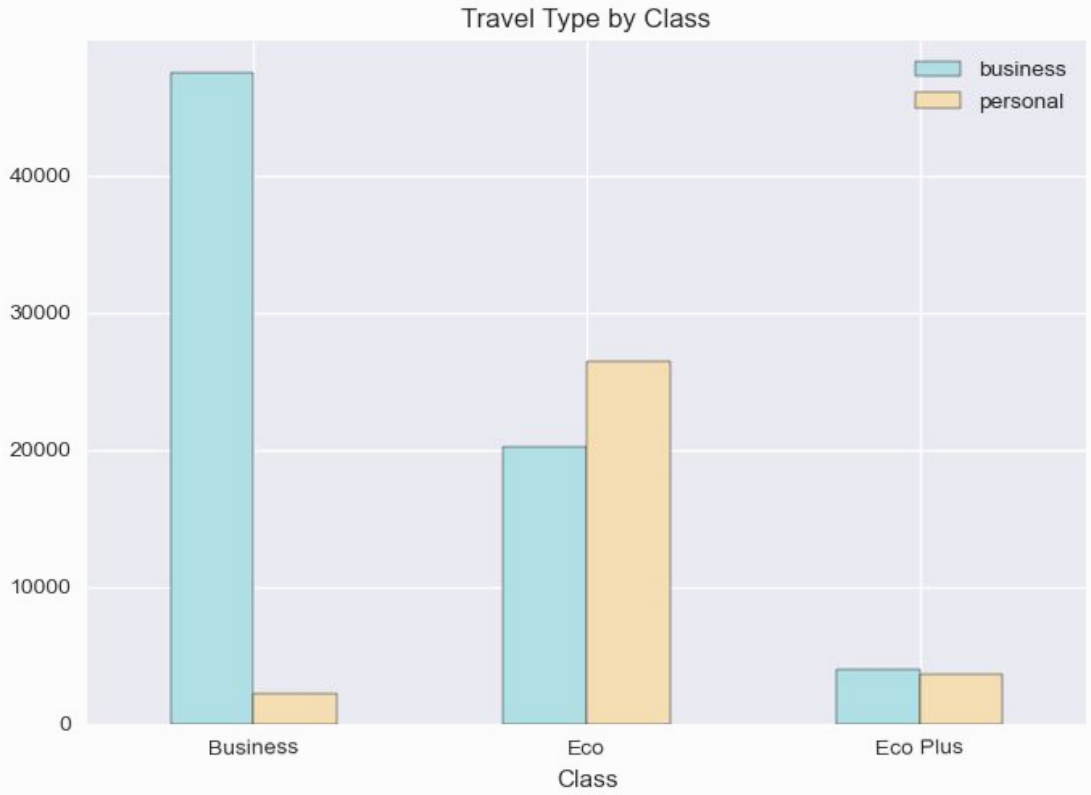


Type of Travel

Business travelers have a drastically higher satisfaction rate



Class & Type of Travel



Business travelers are far more likely to travel business class

Recommendations

- Intuitive Online Boarding
- Fast, reliable, affordable Wifi
- Improve service & amenities to Eco Class

Limitations/Further Exploration

- Obtain text based reviews
- Additional hyperparameter tuning
- Consider another metric

Thanks!

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