

AIRLINE CUSTOMER SATISFACTION

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APRIL 2023

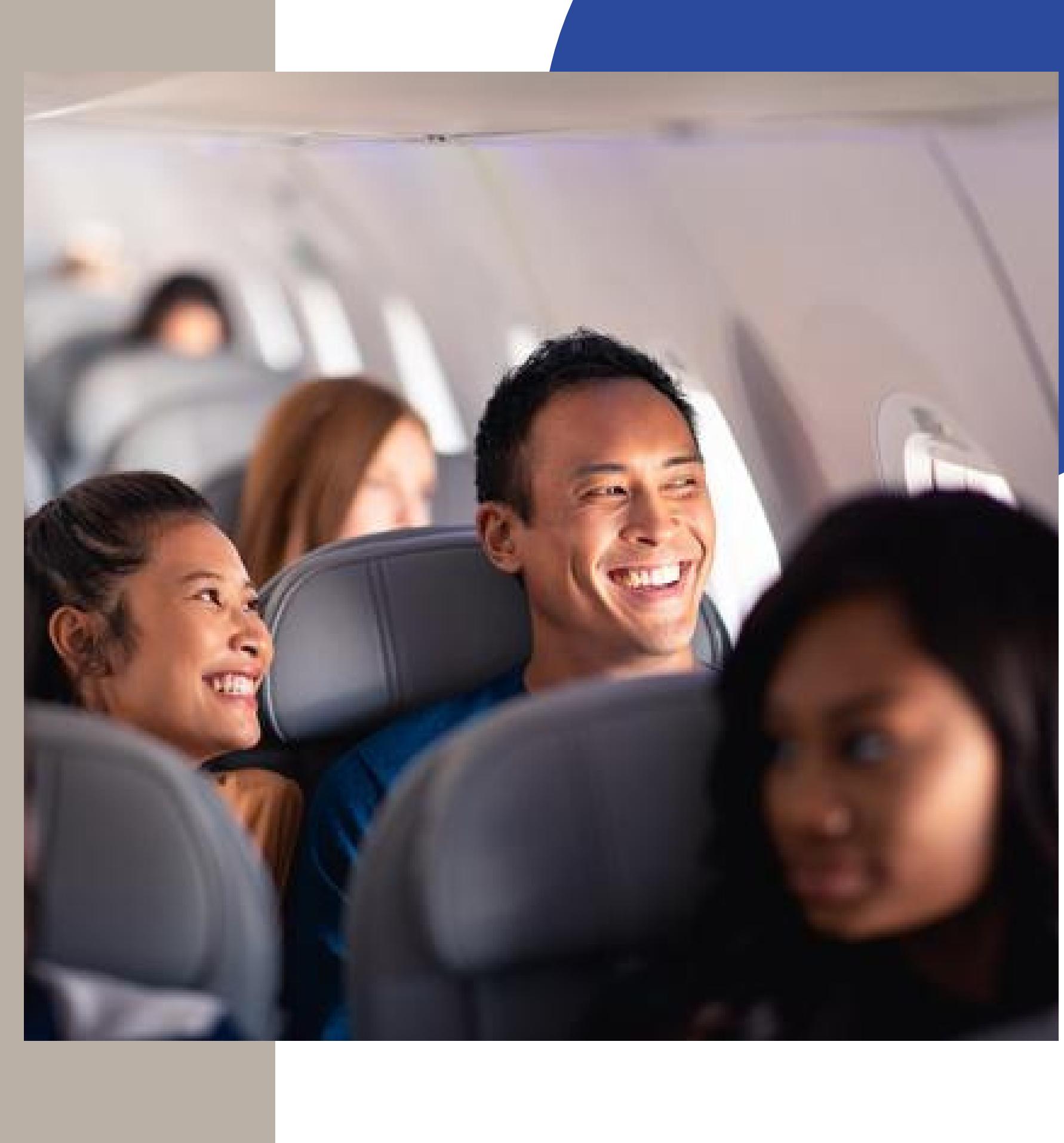
BUSINESS PROBLEM

Excellent customer service is essential for the airline industry. In order to improve overall customer experience, it's vital to know *which factors matter most to passengers.*



OUTLINE

- Overview
- Data
- Models
- Results
- Recommendations
- Limitations

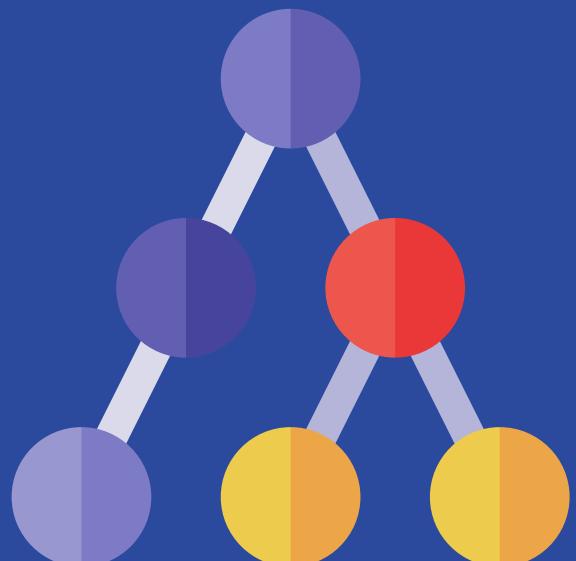


OVERVIEW

CUSTOMER DATA



PREDICTION MODEL



RESULTS

Online Boarding
Inflight WiFi

Personal Travel

Kaggle.com

XGBoost

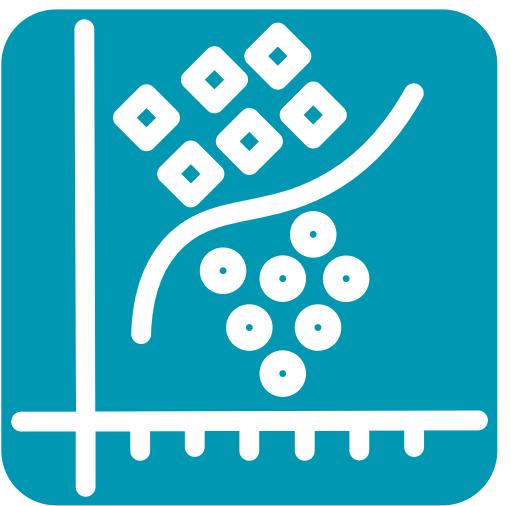
Top 3 Features



DATA

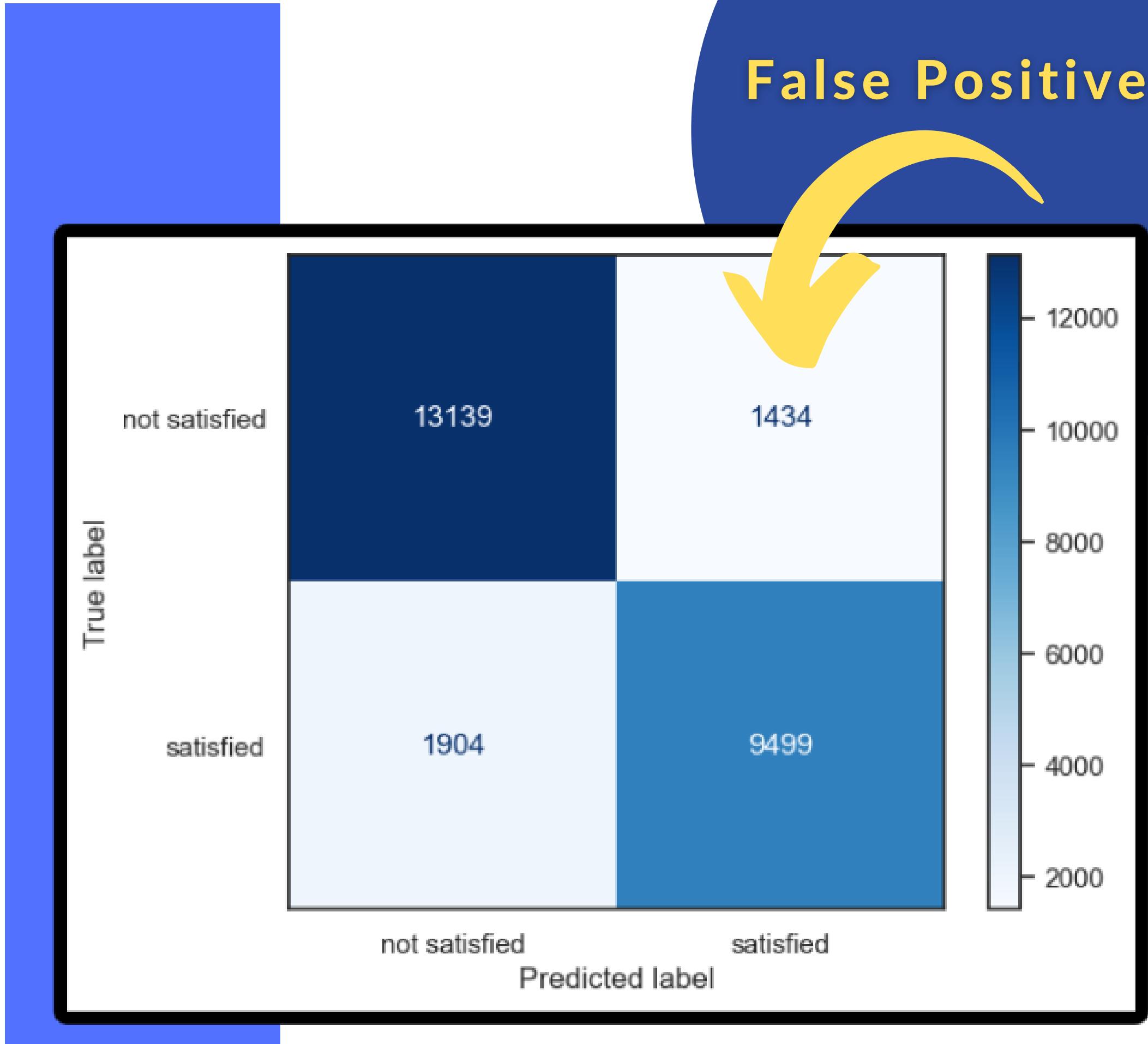
PASSENGER DEMOGRAPHICS
TRAVEL DETAILS
ASPECTS OF FLIGHT EXPERIENCE

- Obtained from Kaggle.com
- Over 129,000 Customers Surveyed
- 23 Features Listed



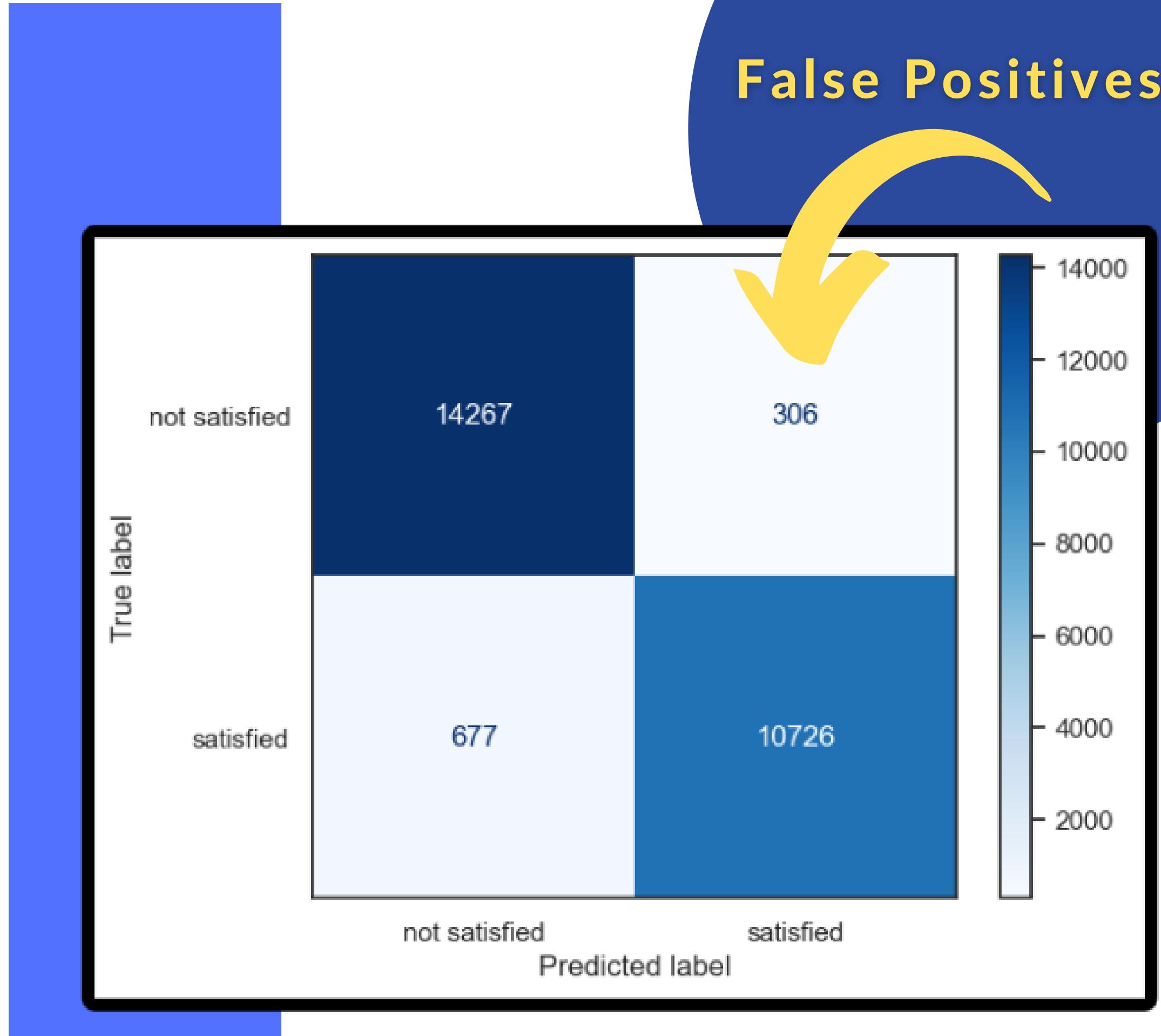
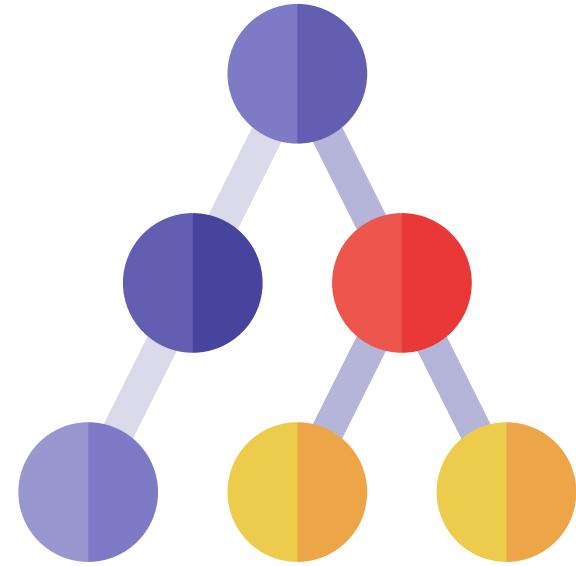
INITIAL MODEL

Simple Logistic Regression Model
precision score: 0.87



FINAL MODEL

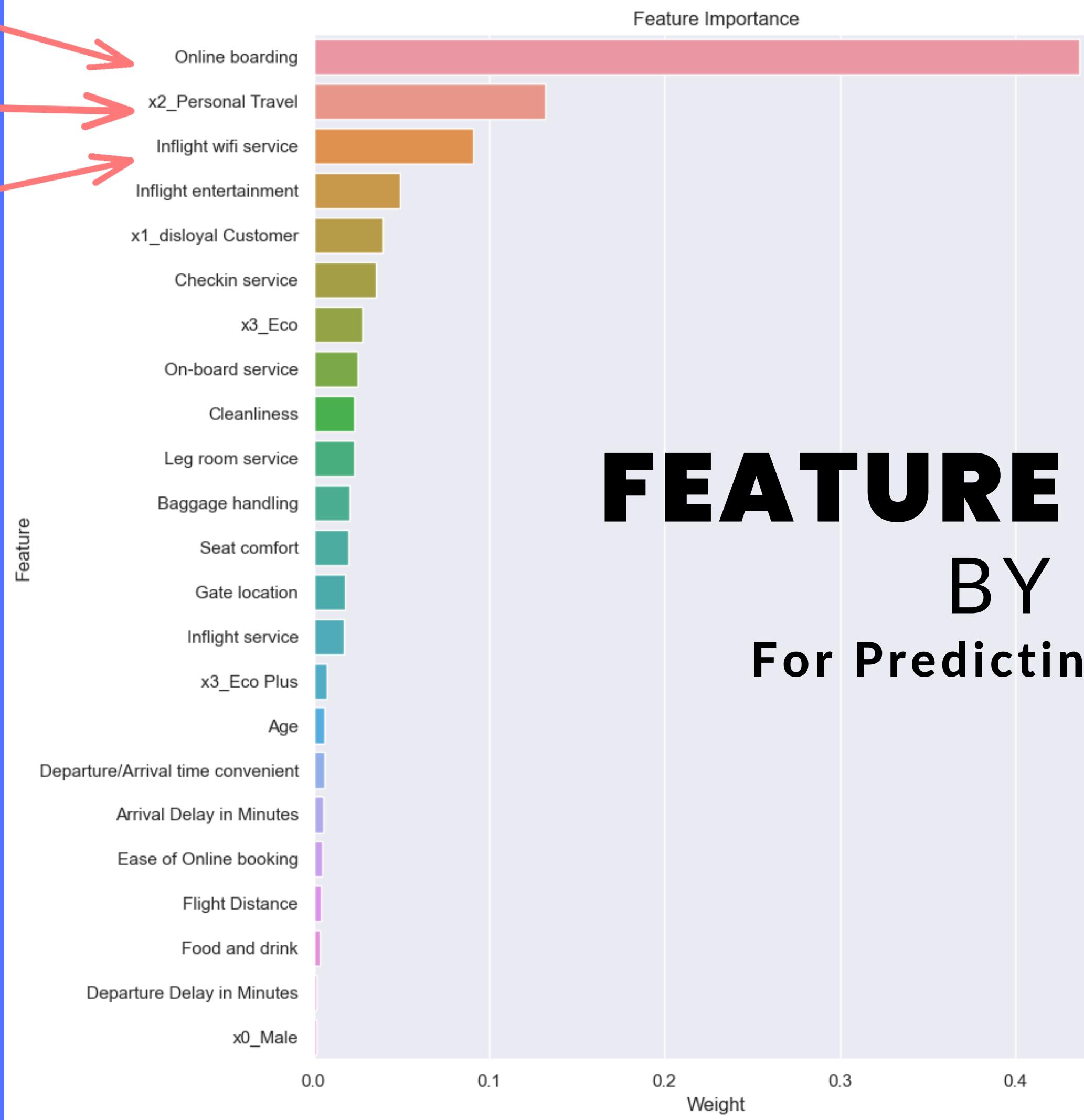
XGBoost Model
precision score: 0.97



RESULTS

TOP FEATURES THAT IMPACT
CUSTOMER SATISFACTION ARE...

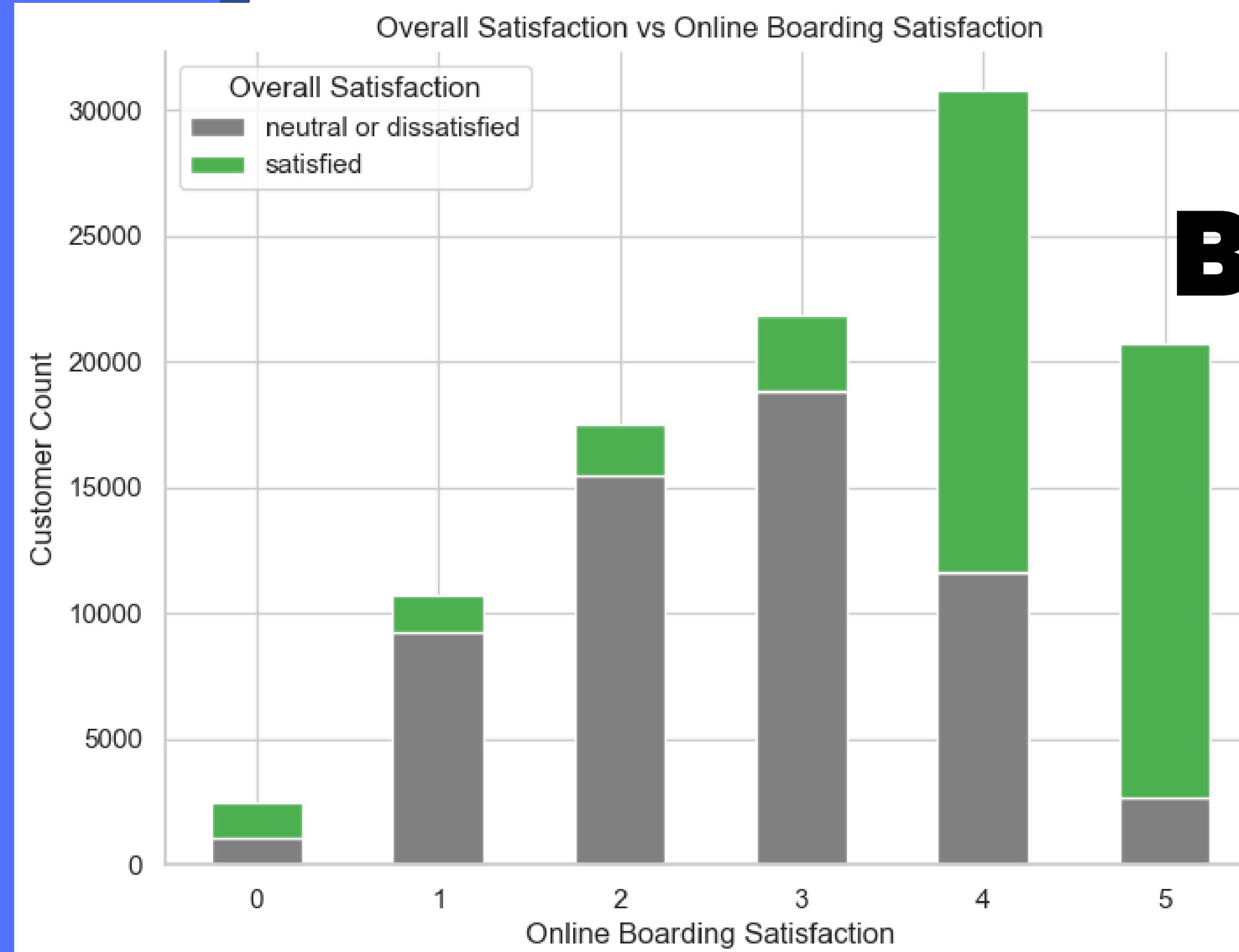




FEATURE IMPORTANCE BY WEIGHT

For Predicting Overall Satisfaction

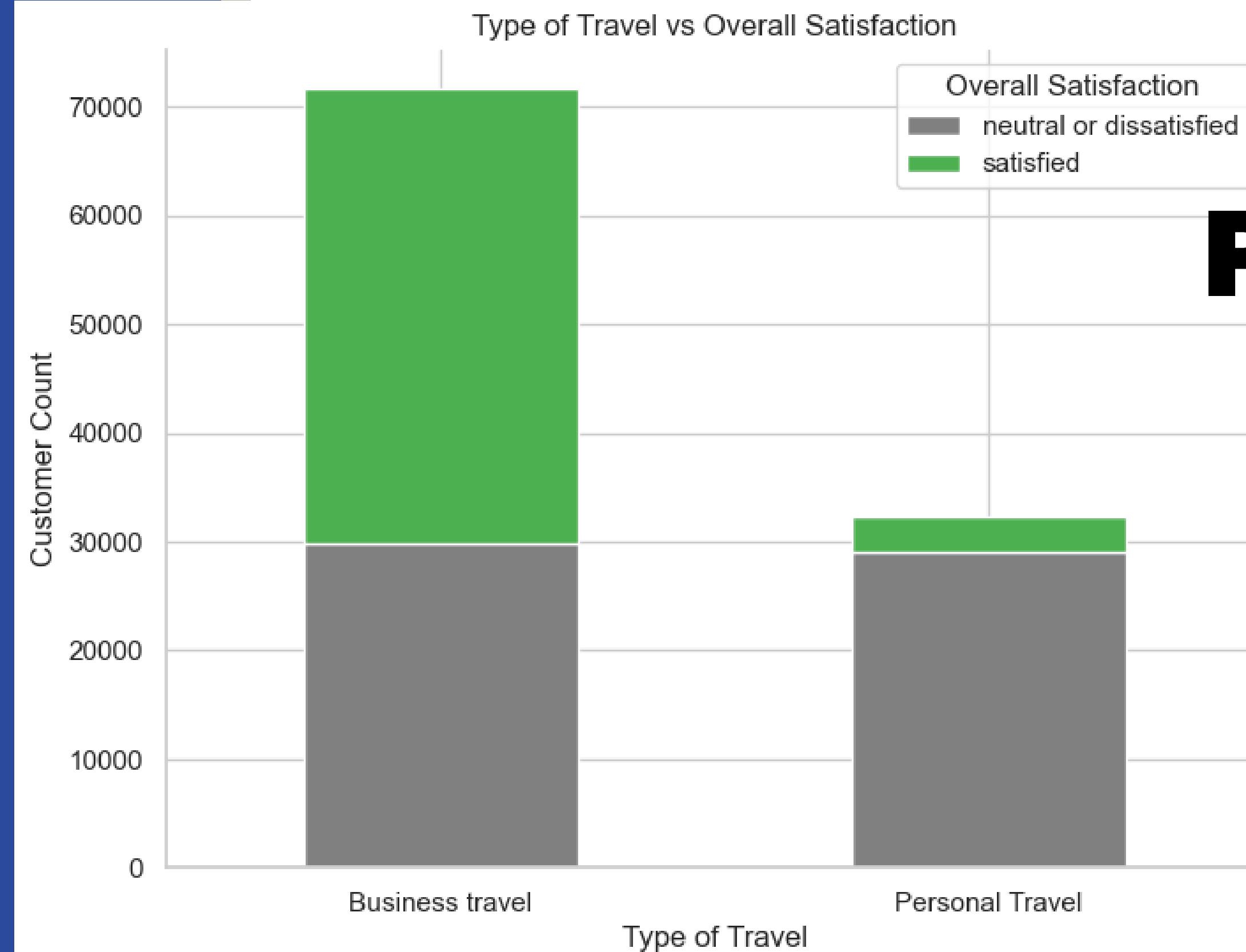
ONLINE BOARDING

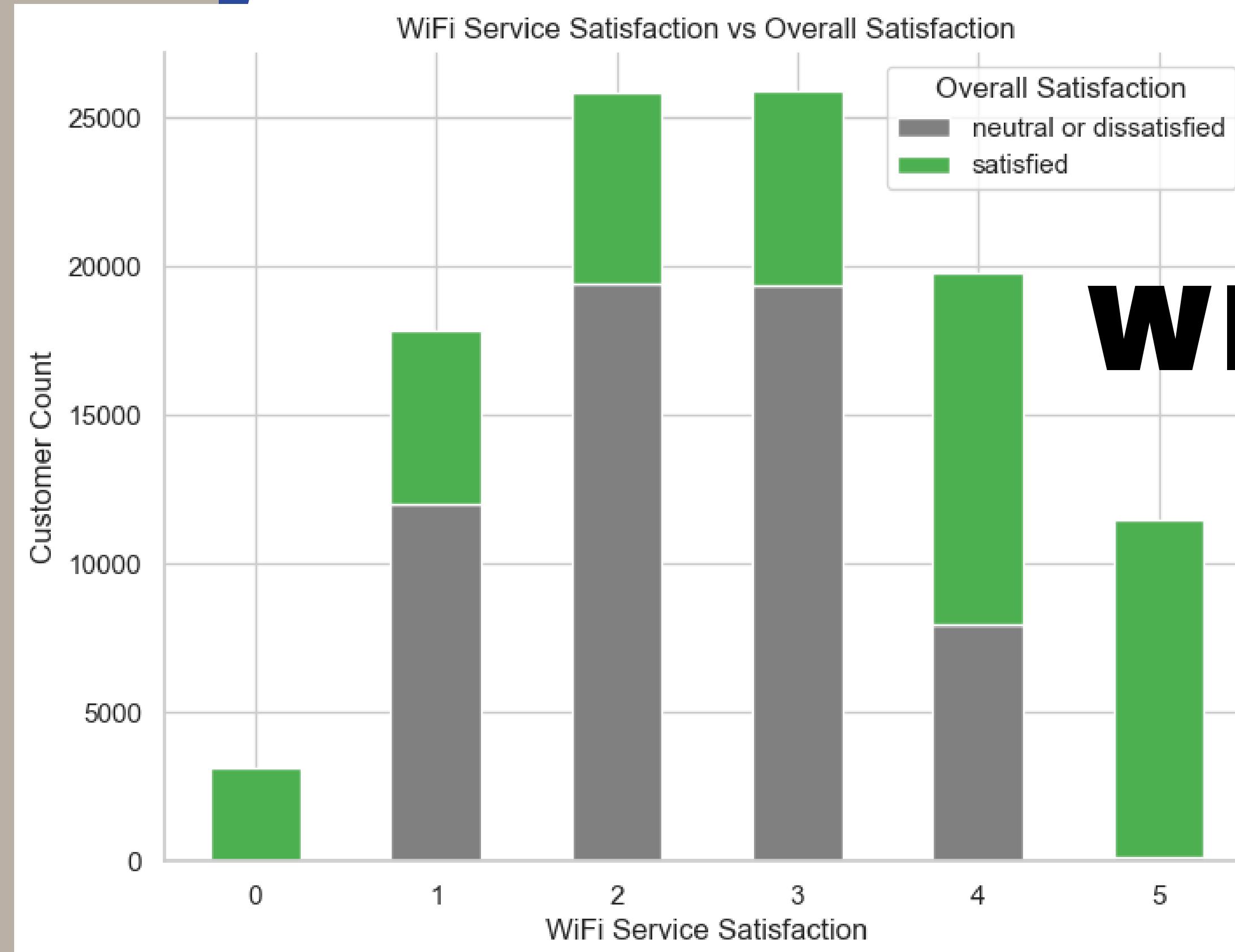


Online boarding
satisfaction has the
highest impact on
overall satisfaction

PERSONAL TRAVEL

- Personal travel was the second highest predictor of overall satisfaction
- **Personal travel had high rates of overall dissatisfied scores.**





WIFI SERVICE

WiFi service satisfaction scores had the third highest impact on overall satisfaction.

RECOMMENDATIONS

1

ONLINE BOARDING

Put resources into the online boarding process to keep it state of the art.

2

PERSONAL TRAVEL

Put resources into investigating and improving features that personal travelers value.

3

WIFI SERVICE

Put resources into exploring opportunities to optimize WiFi service during flight.



LIMITATIONS

- **Data bias**- data set may not be representative of the general population.
- **Limited feature set**- There may be important features not accounted for such as weather.
- **Changes in data distribution**- if customer preferences or behaviors change over time, the model may need to be updated to reflect these changes.



WHAT'S NEXT?

- Explore which features are most important to personal travelers.
- Expand the data set to include more airlines and/or more features.



Thank you

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