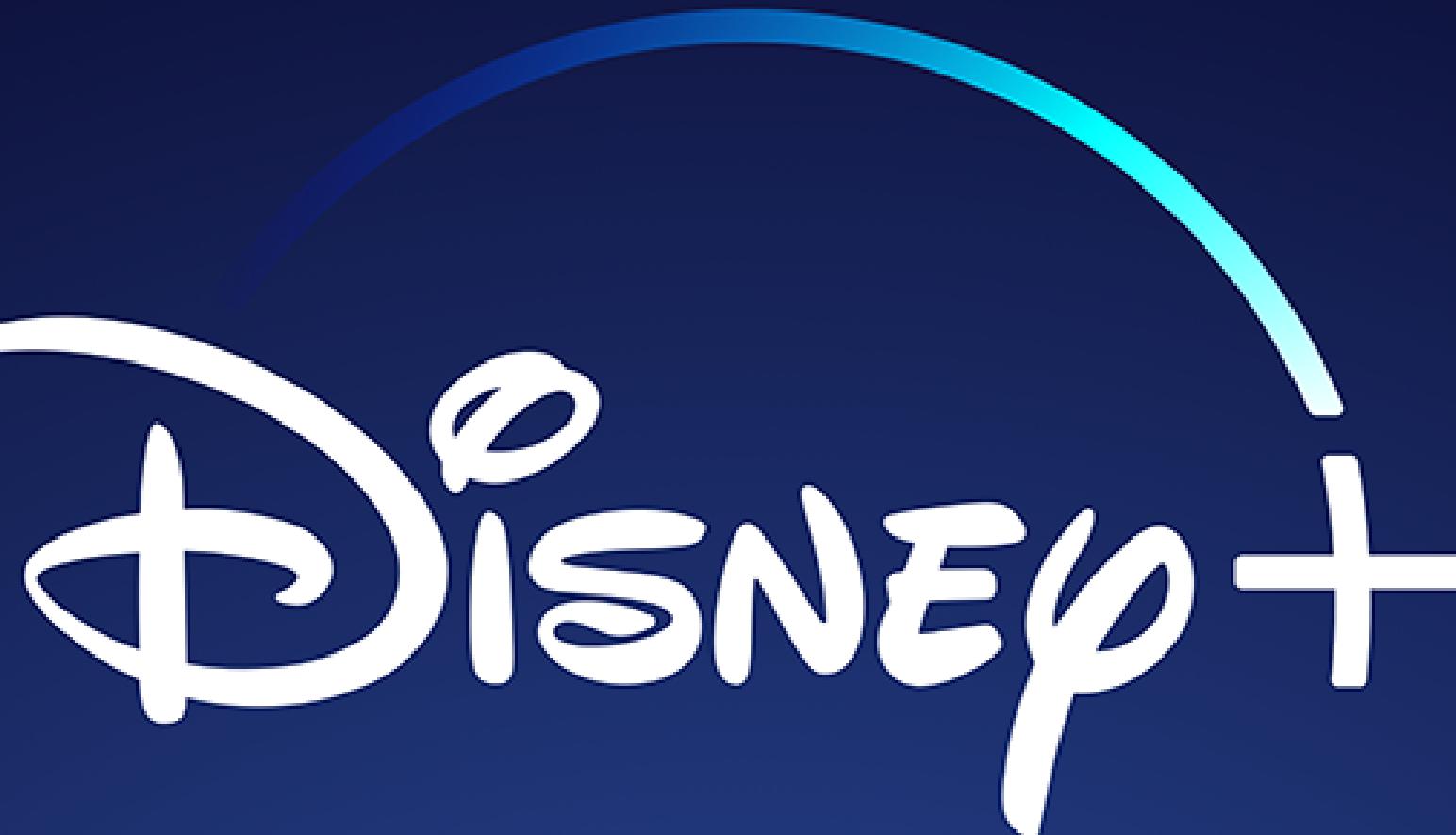




DISNEY AIRLINE

*Feature Exploration and Recommendation
Using Classification Modeling*

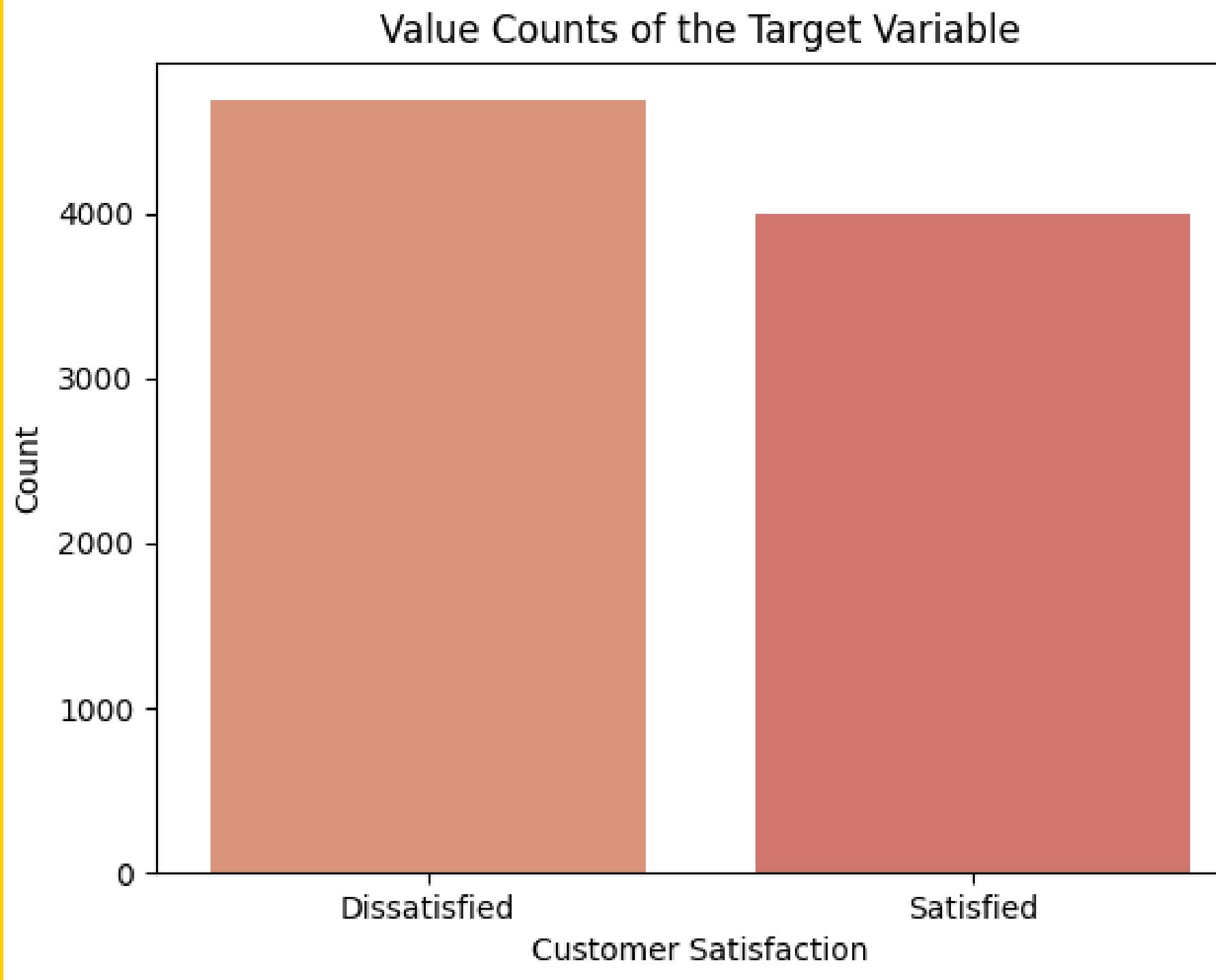
Presented By: Emily Marsh



Business Objective

Disney is interested in expanding into the **airline industry** and has commissioned this team to explore which **features** lead to **higher customer satisfaction**

Dataset

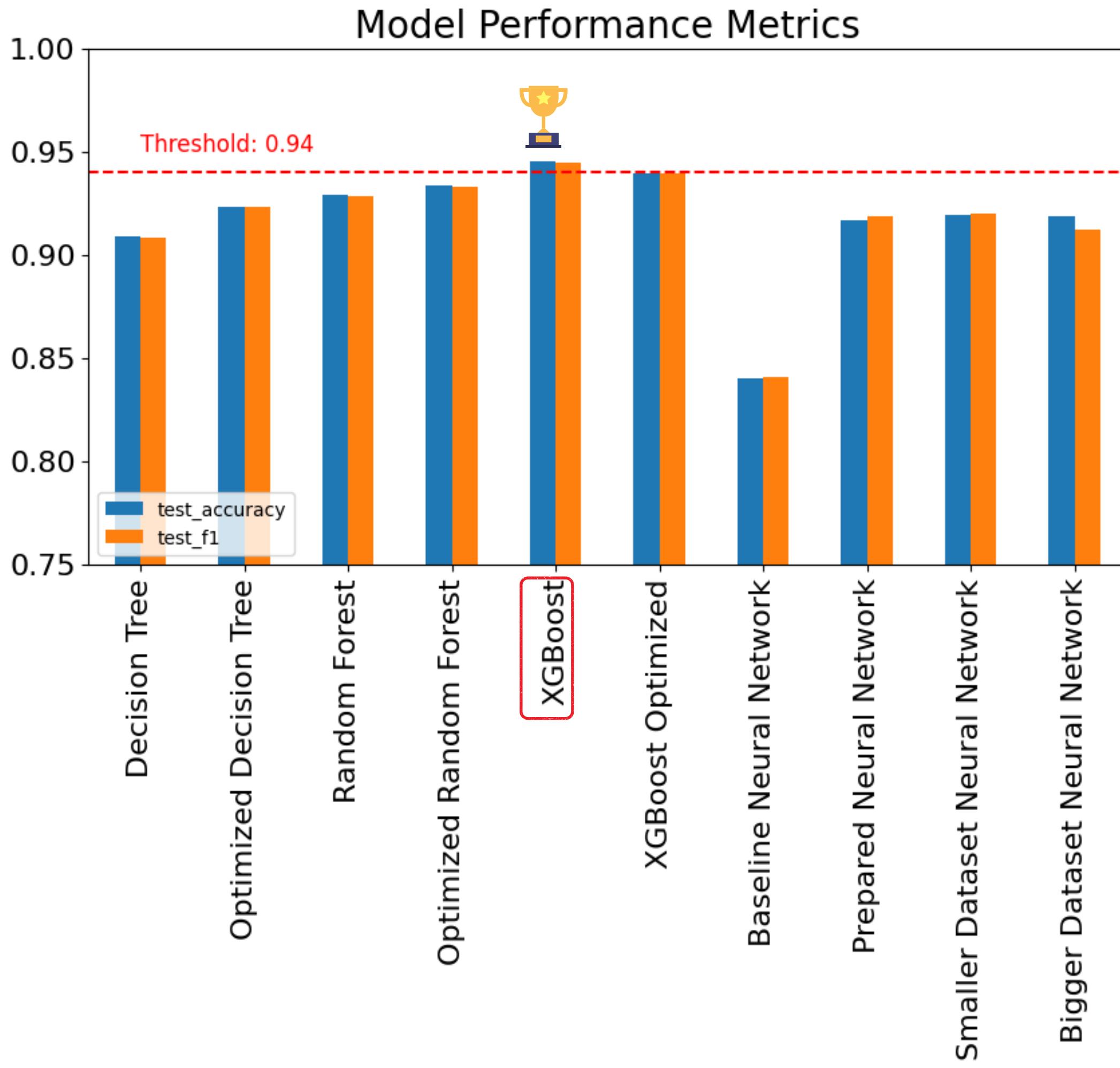


- **129,880 Respondents** to an airline passenger customer survey
- **23 Parameters** per Respondent
- Respondents were self classified as either **Satisfied or Dissatisfied**

Model Results

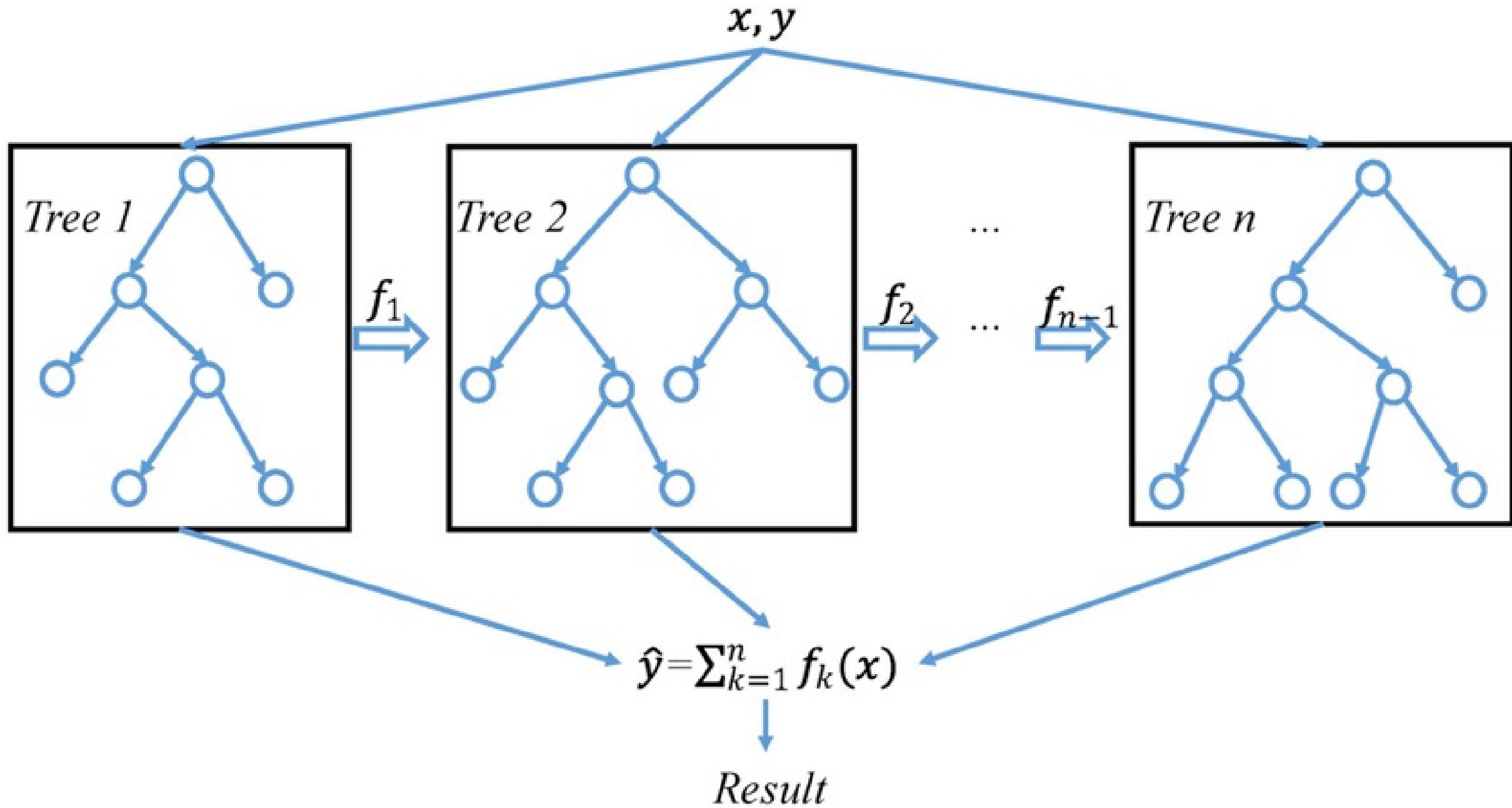
**FINAL
MODEL:
XGBOOST**

**F1 Score
Sample
.95**



XGBoost Model

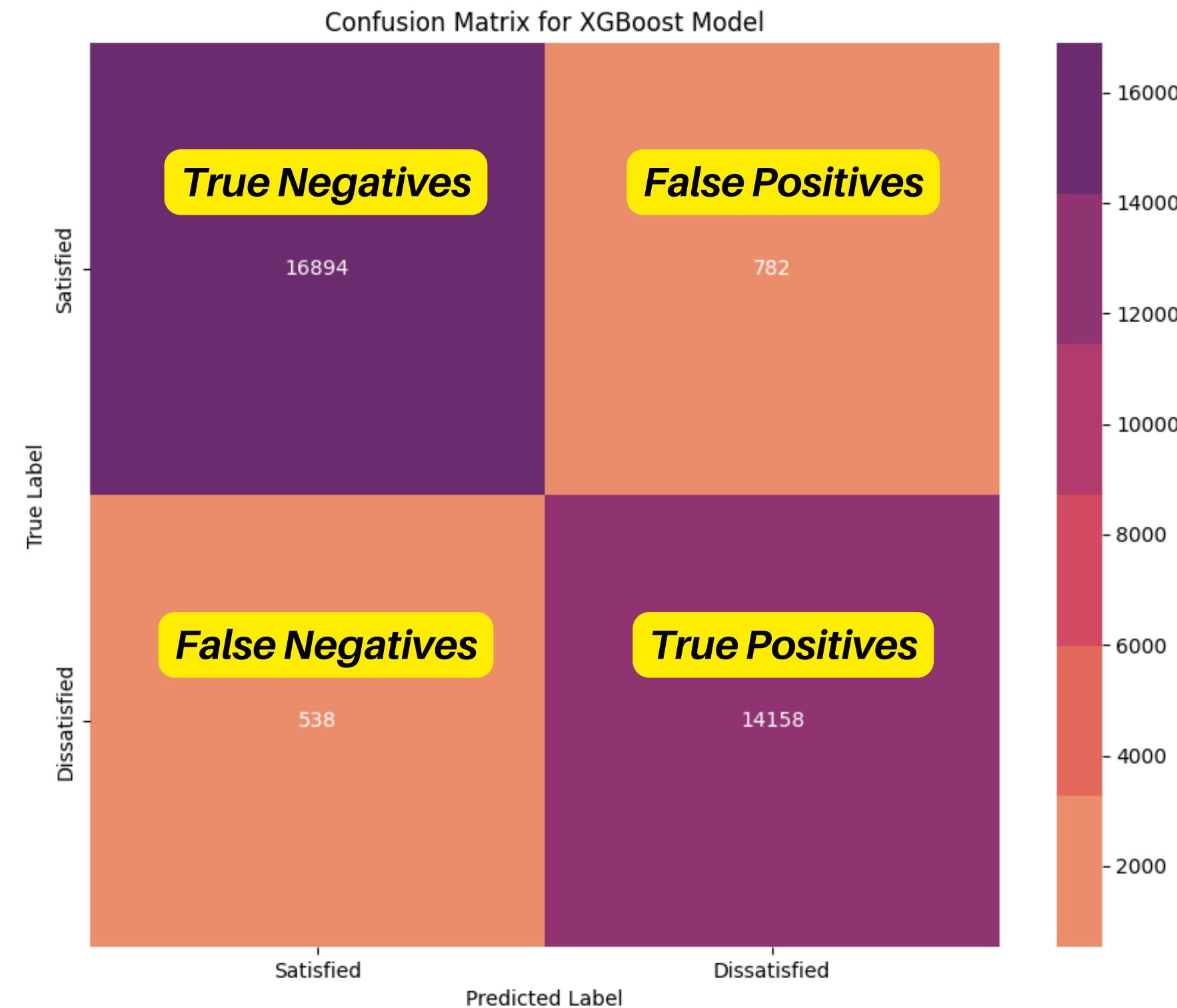
- **XGBoost Model** incorporates the best features of several different models



Results

**XGBOOST
MODEL**

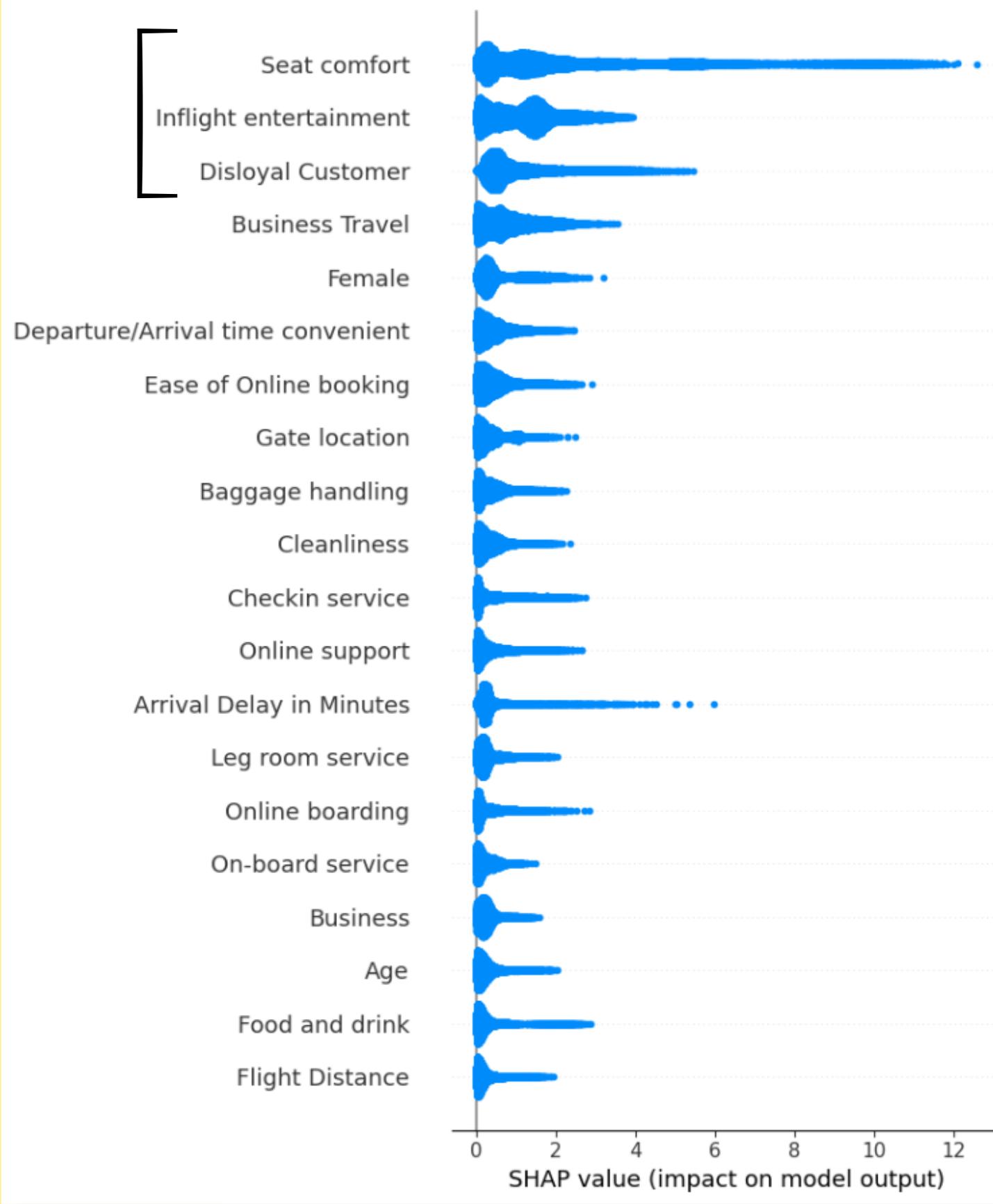
**F1 Score
Dataset**
.96



Conclusion

The following three features were the most impactful on dissatisfied respondents

- **Seat Comfort**
- **Inflight Entertainment**
- **Customers Without Airline Loyalty**



*Represents total distributions ranked by average

Recommendations

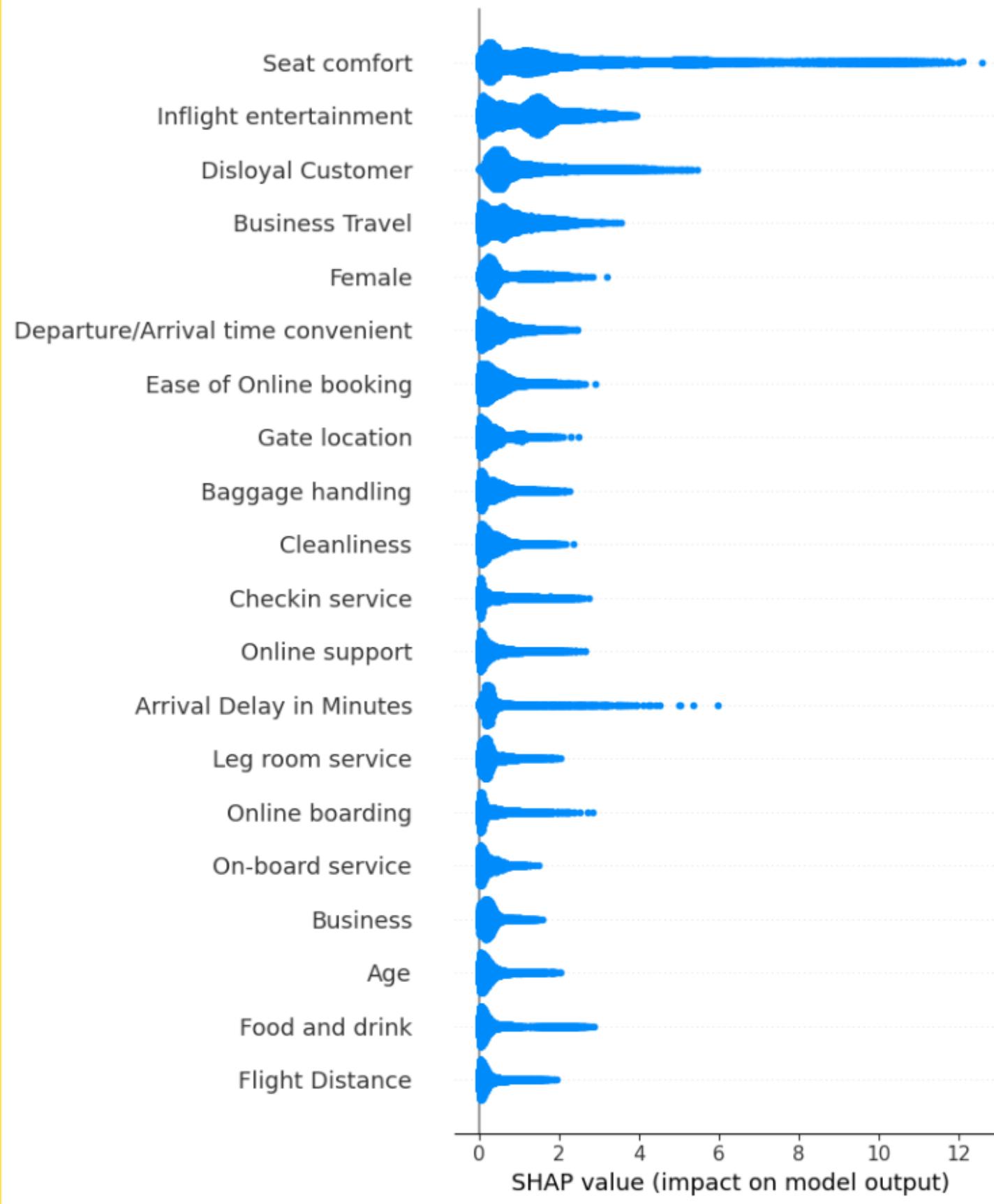


Seat Comfort with a
Potential Cost of 1.38
million USD per Plane

Inflight Entertainment
with a **Potential Monthly
Savings of 175,000 USD**
per Month

Disney Airline Loyalty
Program with a **Potential
Profit of 400 Million**
USD per Year

Next Steps



1

**ADDITIONAL RESEARCH ON
FEATURE COSTS AND PROFIT**

2

**RESEARCH INTO OTHER
IMPACTFUL FEATURES**

3

**ADDITIONAL OPTIMIZED
PARAMETERS FOR MODELS**

4

EXPAND DATASET

Any Questions?

TOP 3 MOST IMPORTANT FEATURES



SEAT COMFORT



INFLIGHT ENTERTAINMENT



LIMITING DISLOYAL CUSTOMERS

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