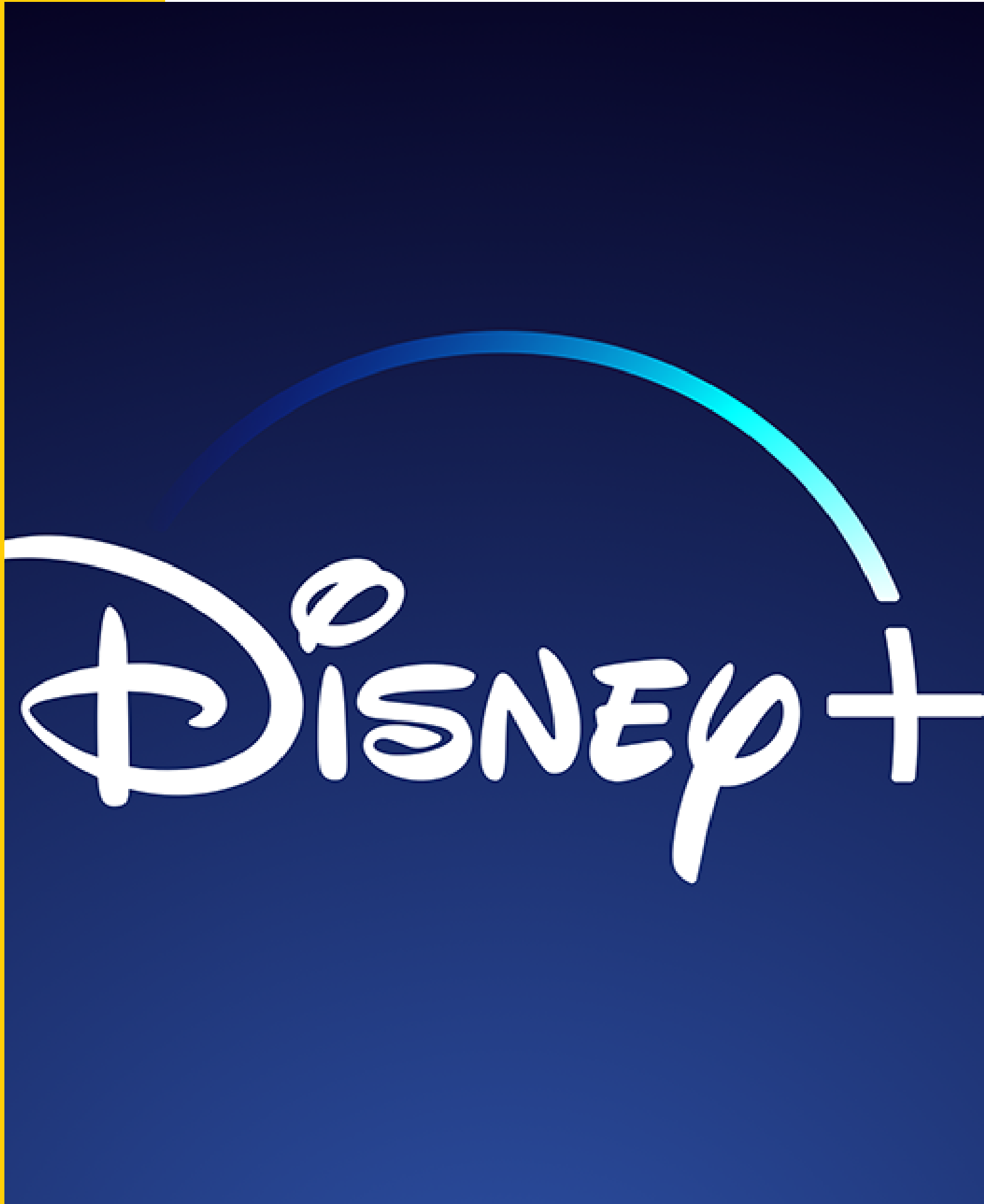




# DISNEY AIRLINE

*Feature Exploration and Recommendation  
Using Classification Modeling*

Presented By: Emily Marsh

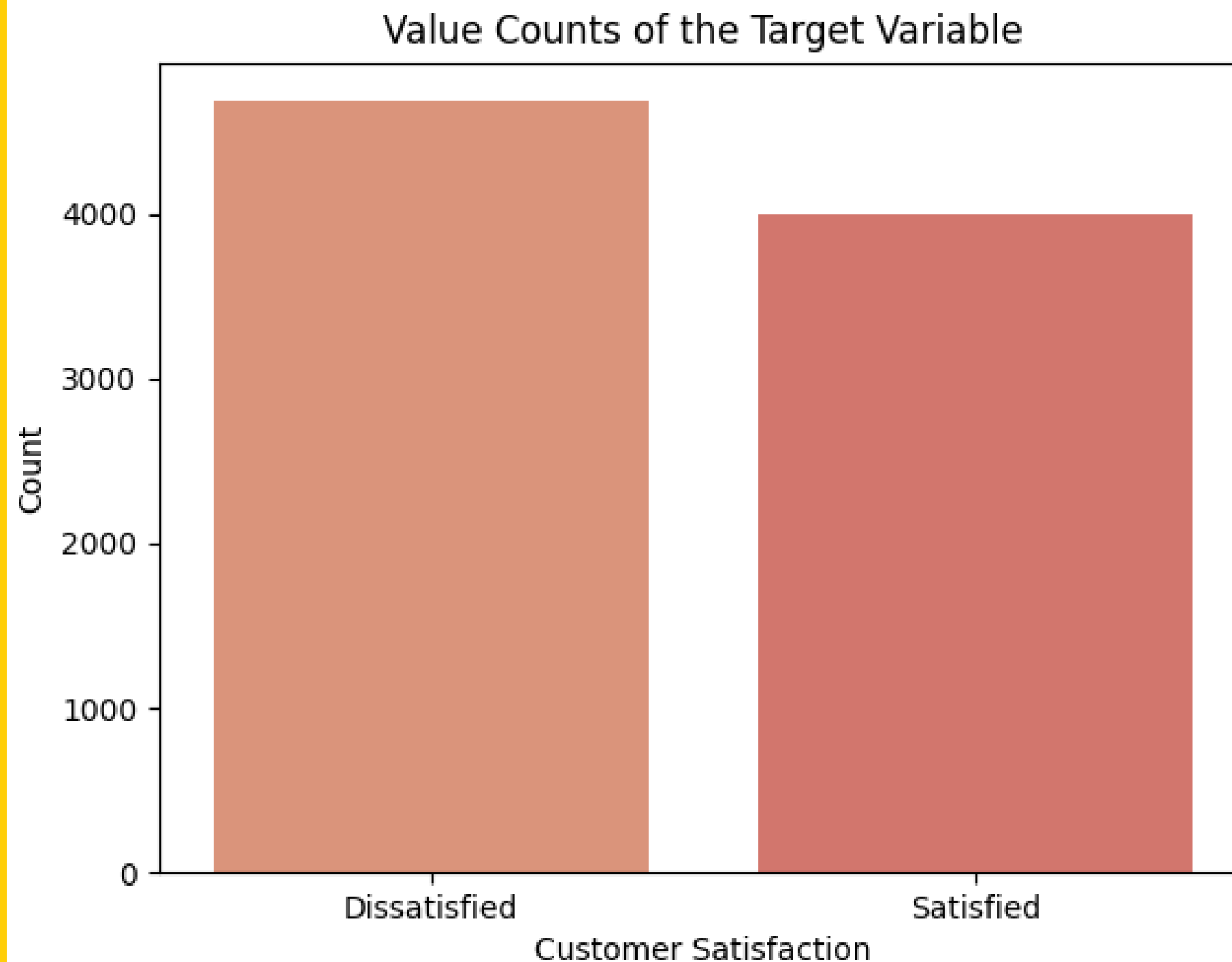


# Business Objective

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





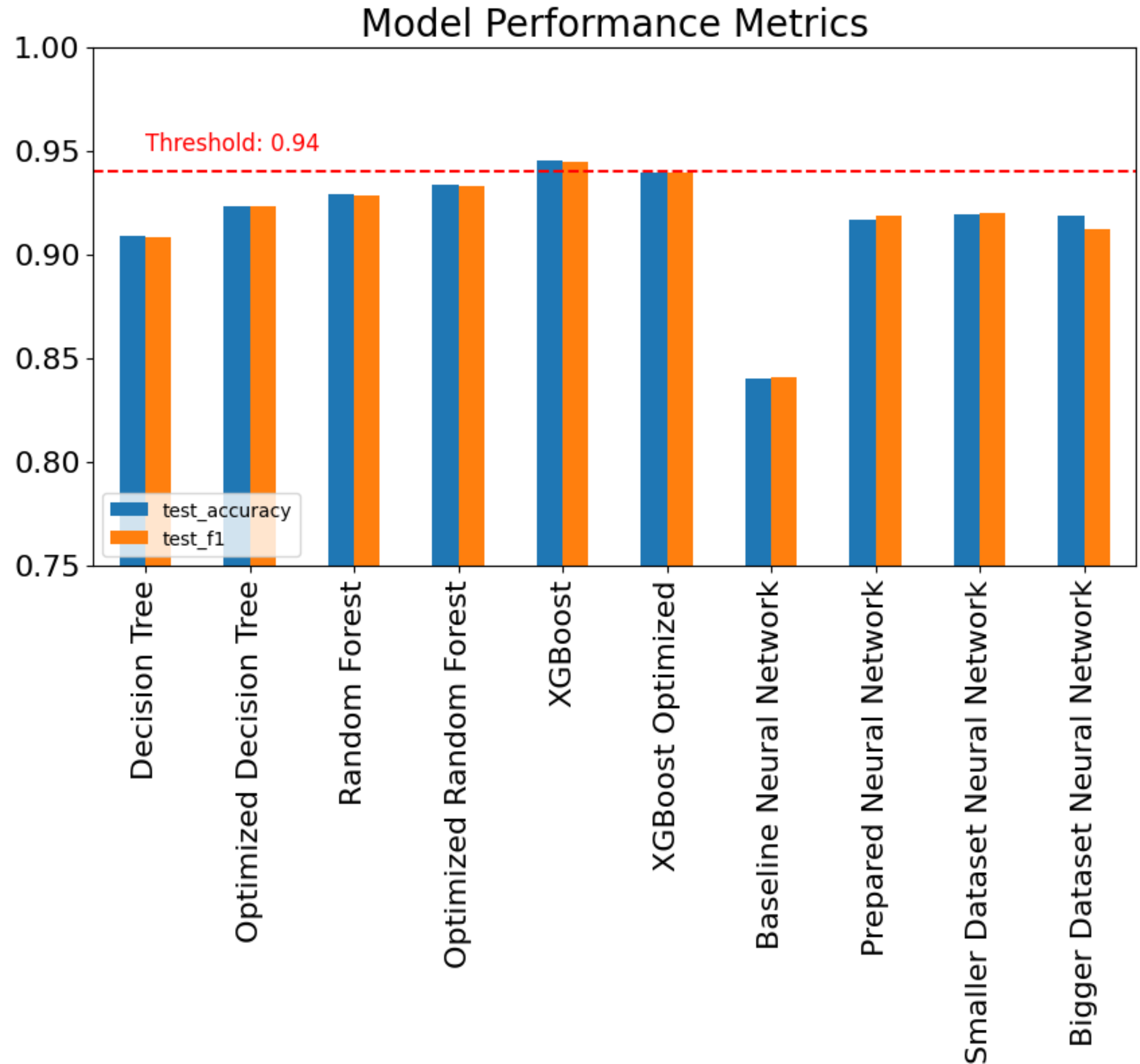
# Dataset

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

# Model Results

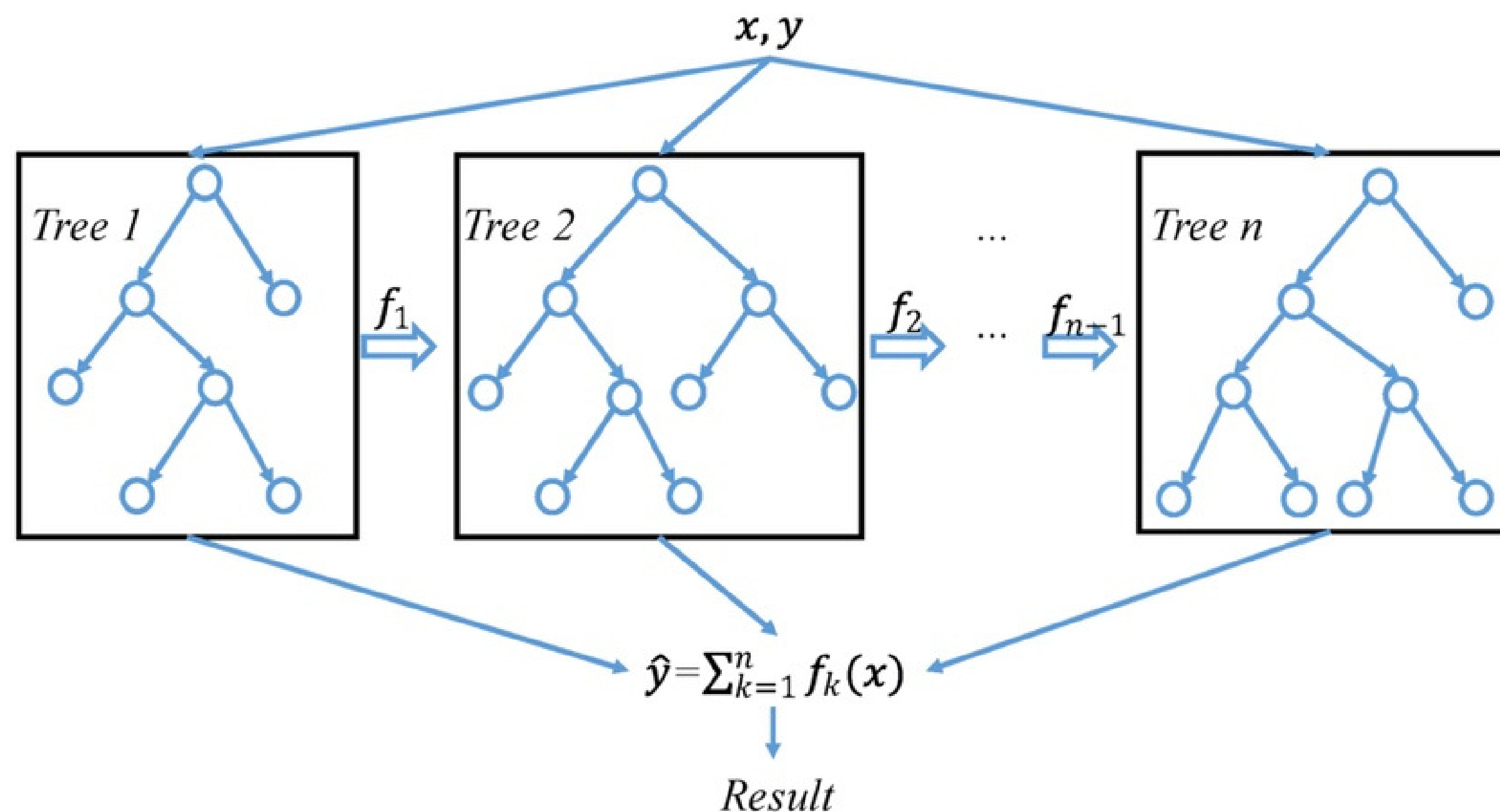
**FINAL  
MODEL:  
XGBOOST**

**F1 Score  
Sample  
.95**



# XGBoost Model

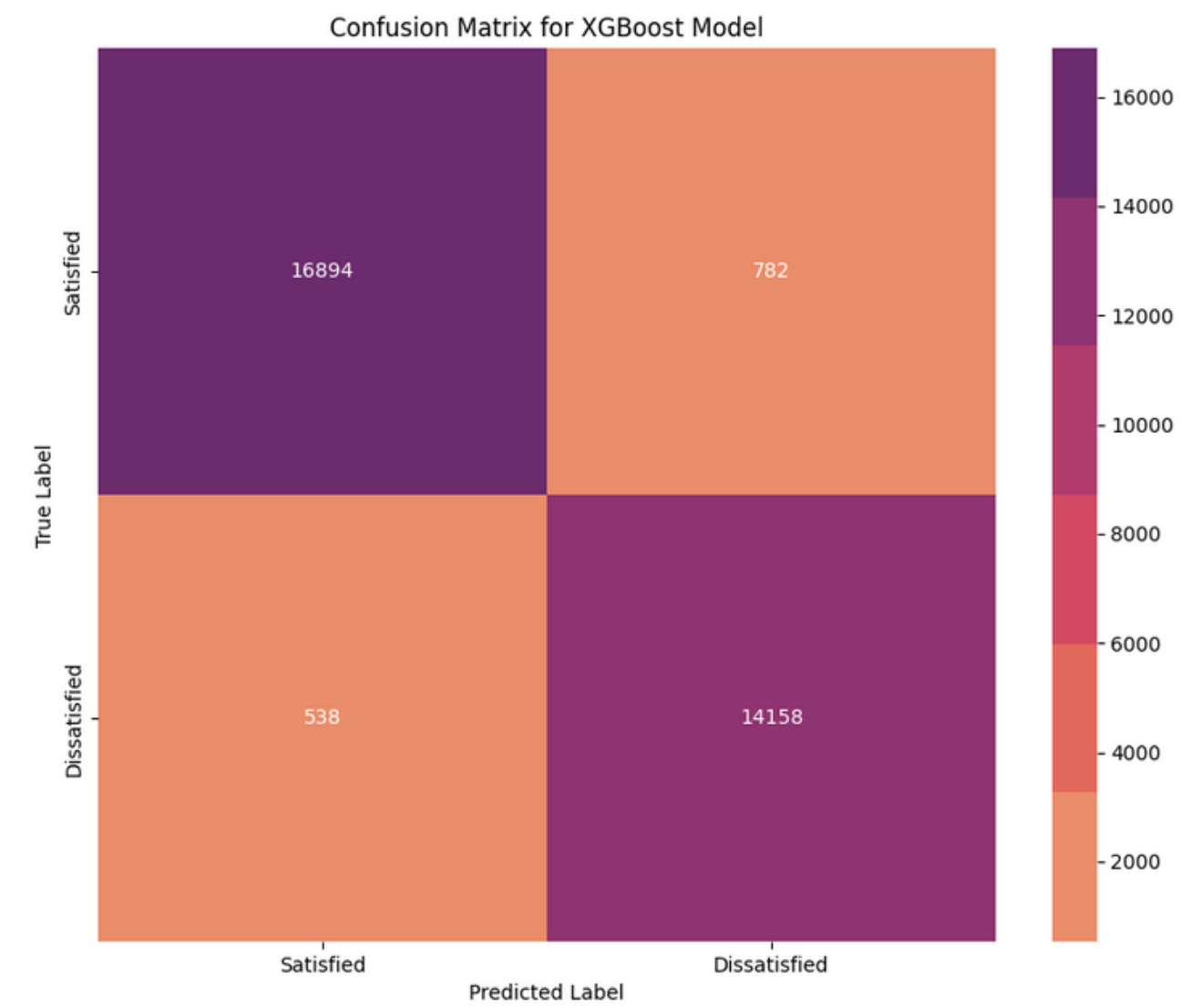
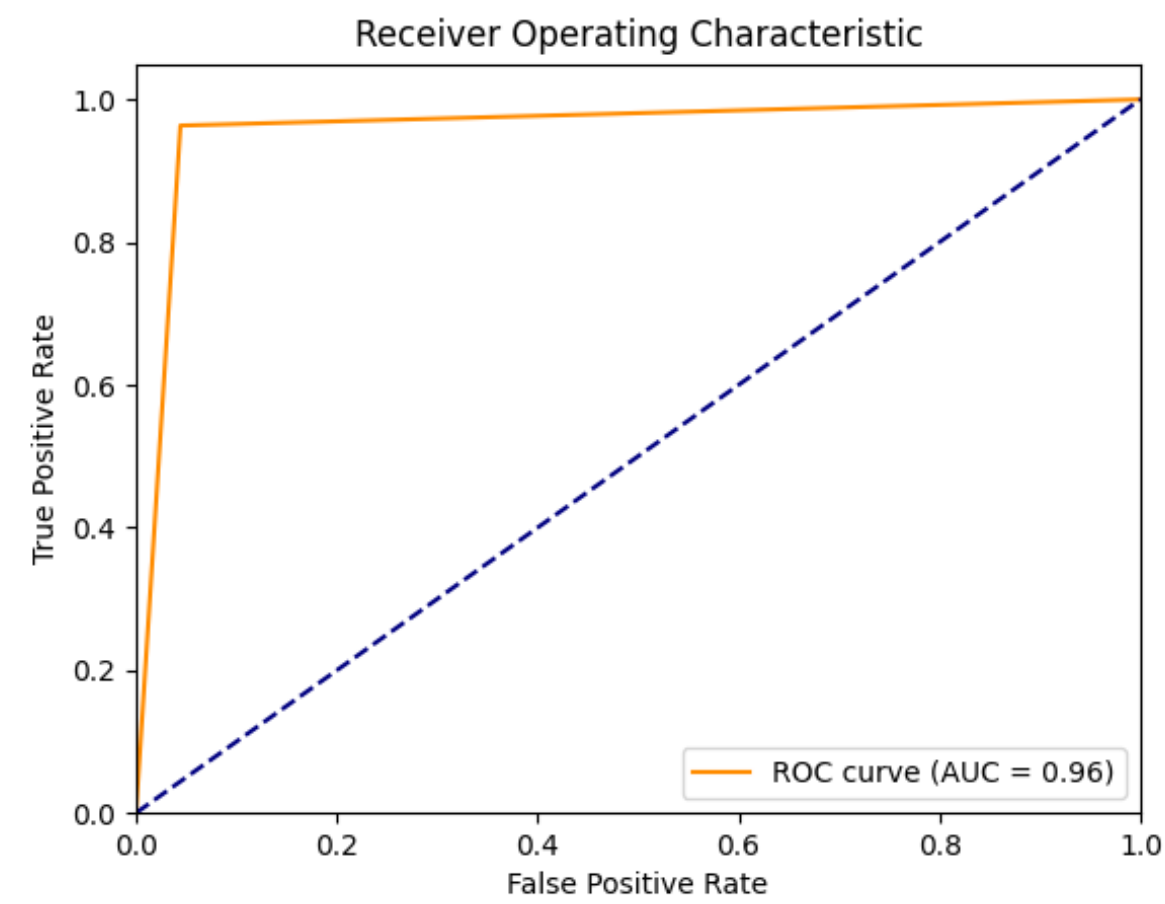
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# Results

**XGBOOST  
MODEL**

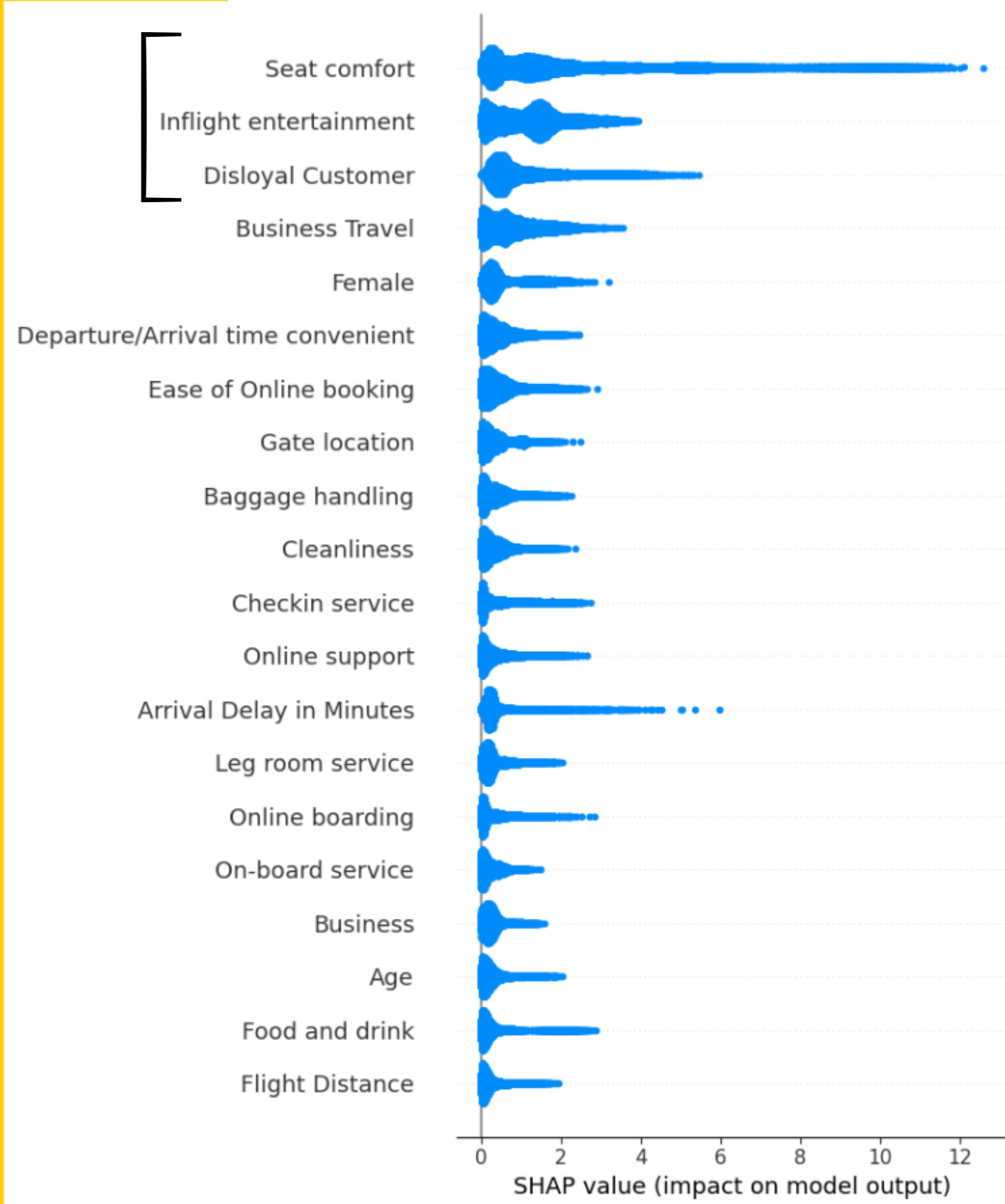
**F1 Score  
Dataset  
.96**



# Conclusion

According to the final model, 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

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**SEAT  
COMFORT**

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

**INFLIGHT  
ENTERTAINMENT**

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

**DISLOYAL  
CUSTOMERS**

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



## TOP 3 MOST IMPORTANT FEATURES



**SEAT COMFORT**



**INFLIGHT ENTERTAINMENT**



**LIMITING DISLOYAL CUSTOMERS**

# Next Steps

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**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?

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