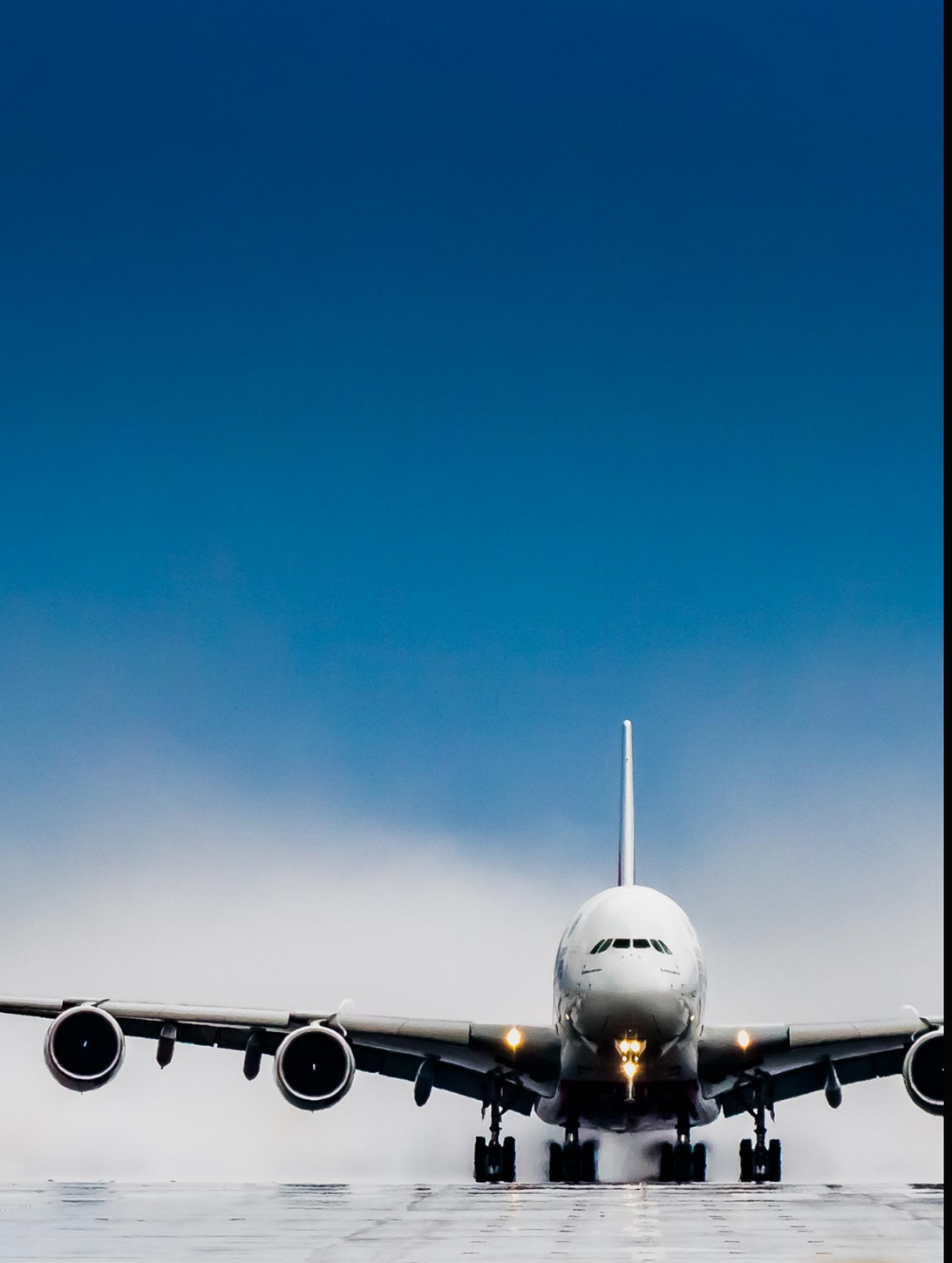


Predicting Flight Satisfaction with Neural Networks

We're a startup revolutionizing customer satisfaction in the airline industry with our advanced Dense Neural Network model.

Group 8

Business Model & Market Opportunity

The problem:

- Customers often have poor flying experinces due to inconsistent service quality.
- Airlines can struggle heavily due to Low satisfaction scores, customer disloyalty, and negative reviews.
- Airline sector currently uses survey data post-flight, and complaint logs, a reactive rather than preventitive approach.

The Solution → Predictive Model DNN

- A Dense Neural Network that predicts customer satisfaction based on numerous factors.
- Airlines become proactive in taking action to improve service, reduce churn, and enhance customer loyalty

How will Airlines become Proactive?

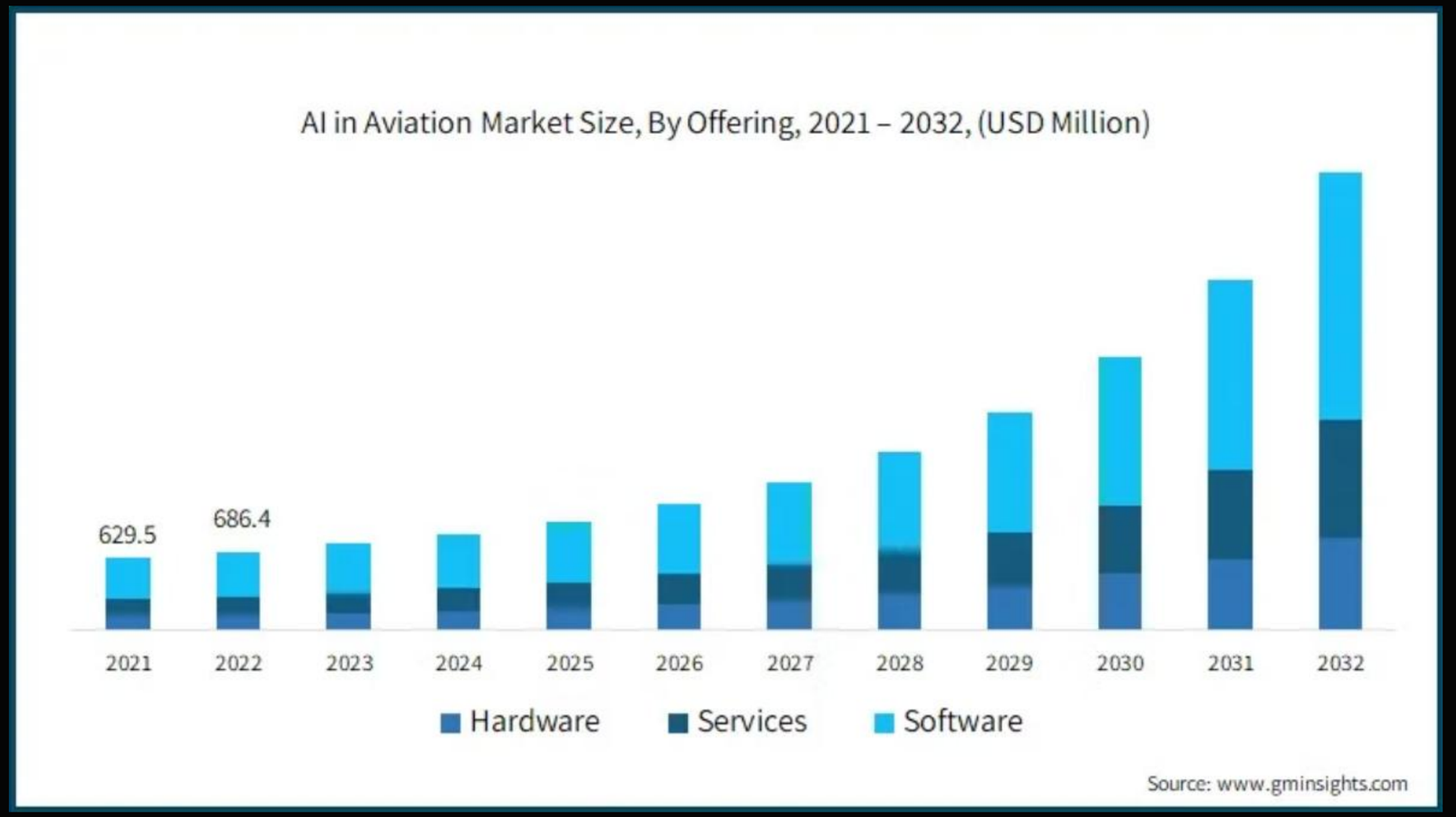
Predictive Insights

Pain Point Identification

Predictive Service Enhancements

Boost Profitability

Market & Competitive Landscape



Open-Source Models: Not personalized, developers needed

In-house Data Analytics teams: Fulltime, long time horizons for projects

Customer & Stakeholders

1. Airlines

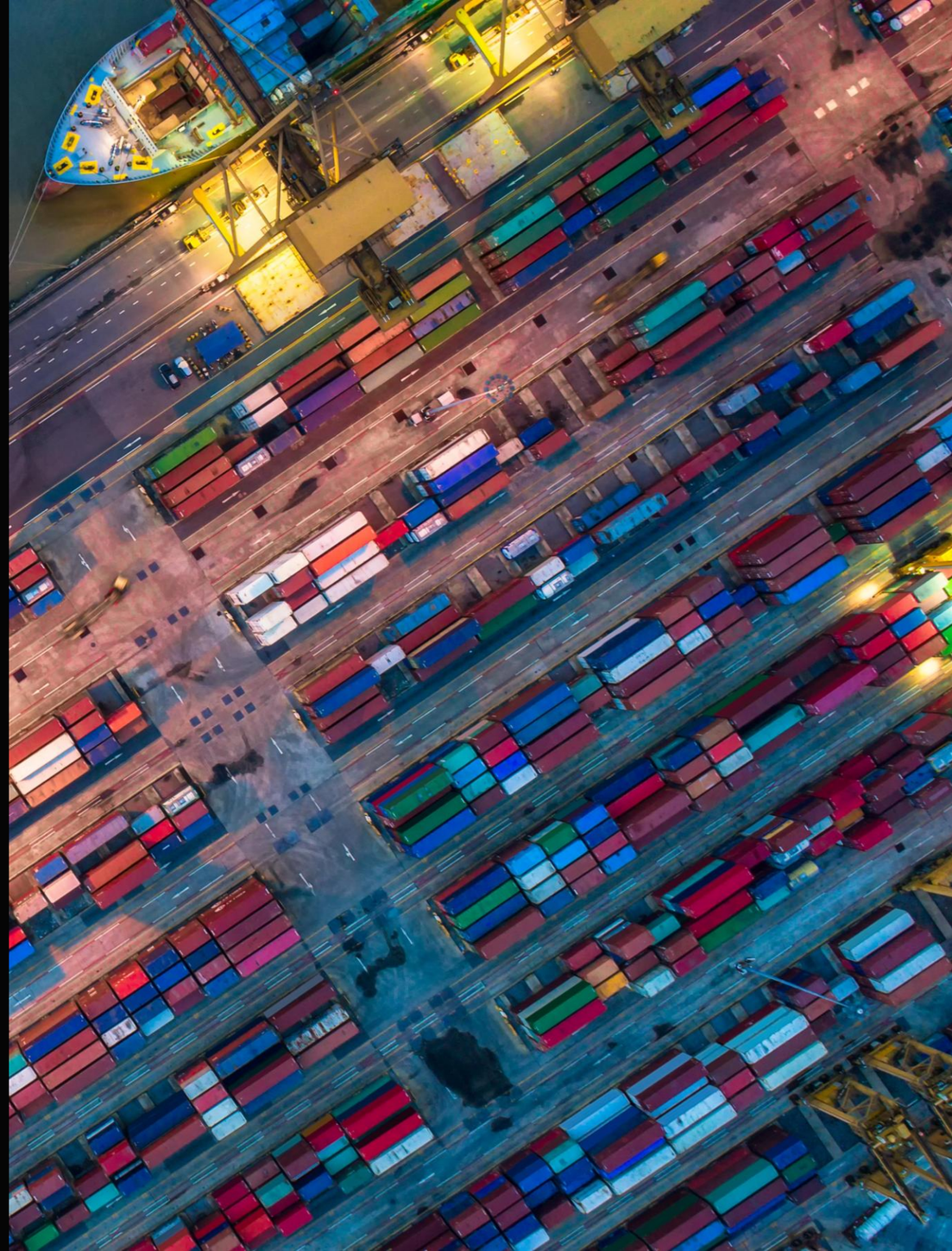
   Key decision makers (CEO and higher mangement)

   Customer service teams

2. Airport Operators

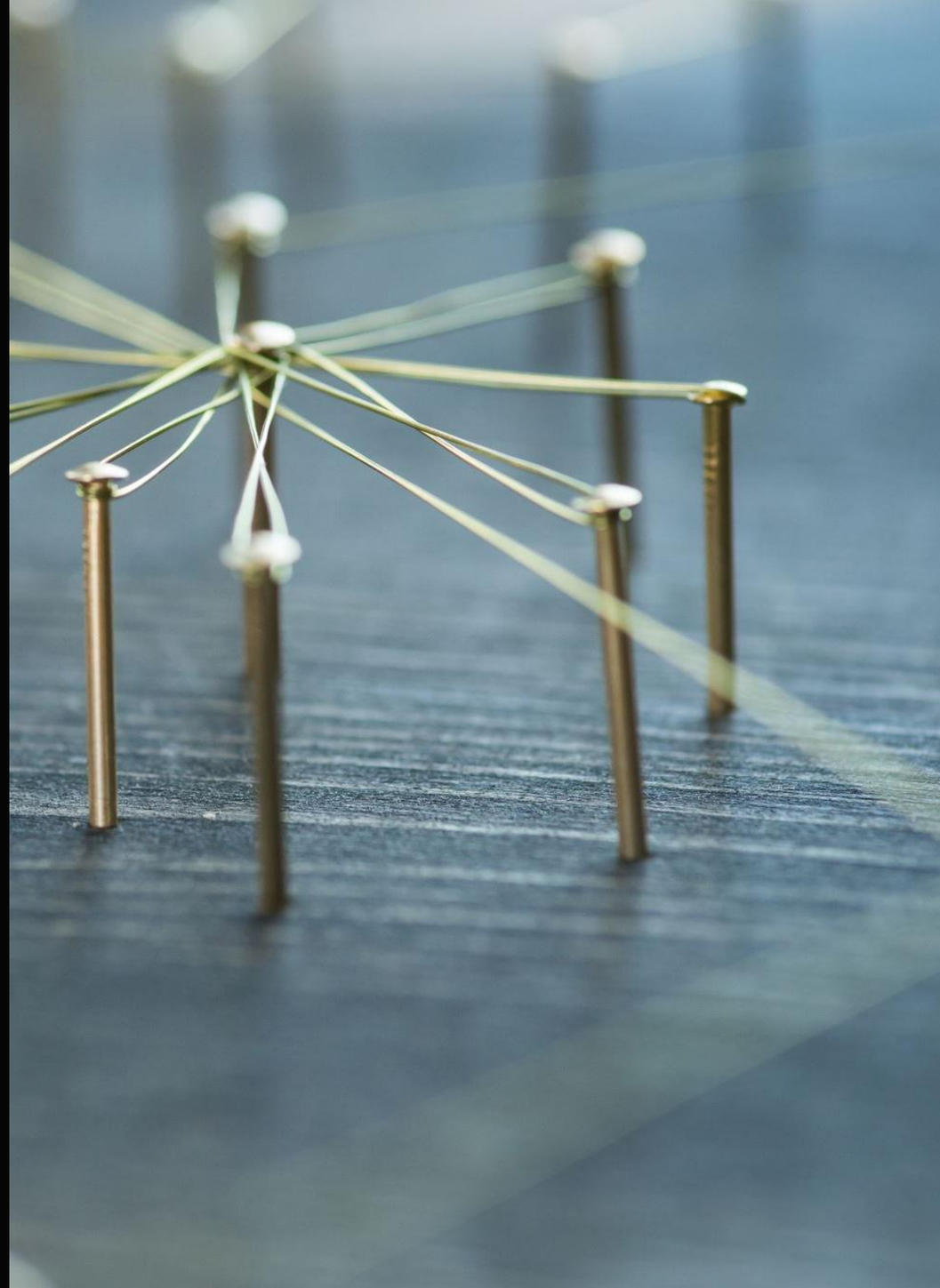
3. Regulators & industry bodies

4. Passengers



Marketing Strategy

1. Digital marketing through LinkedIn, industry blogs, and aviation analytics websites.
2. Partnerships with airline industry forums, aviation conferences, and travel-tech expos.
3. Direct B2B sales approach targeting **customer experience managers** at airlines.



Revenue Strategy

Consultation/ Partnerships

- Contract based, fixed term partnerships and customized development

API/ Online usage

- Subsciption based method

Section 2:

Neural Network Development & Performance

Process Overview

Flight Data Input

We gather a vast range of flight data, including delays, cancellations, baggage handling, and in-flight service.

1

2

Dense Neural Network

Our dense neural network processes this data through multiple layers, extracting complex relationships and patterns.

Satisfaction Prediction

The final layer outputs a probability score, indicating the likelihood of a customer's satisfaction.

3

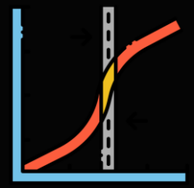
4

Real time Dashboard recommendations

Produce real time recommendations and flags potential service inconsistency.

Model Performance and Key metrics

Logistic regression

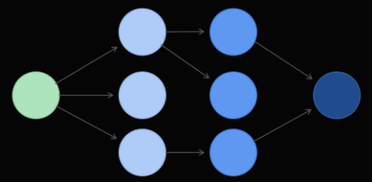


87.73%

F1 score: 0.8770

AUC Score: 0.8730

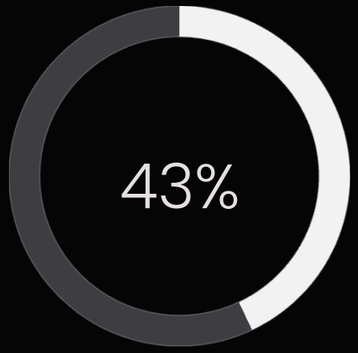
Dense Neural Network



96.44%

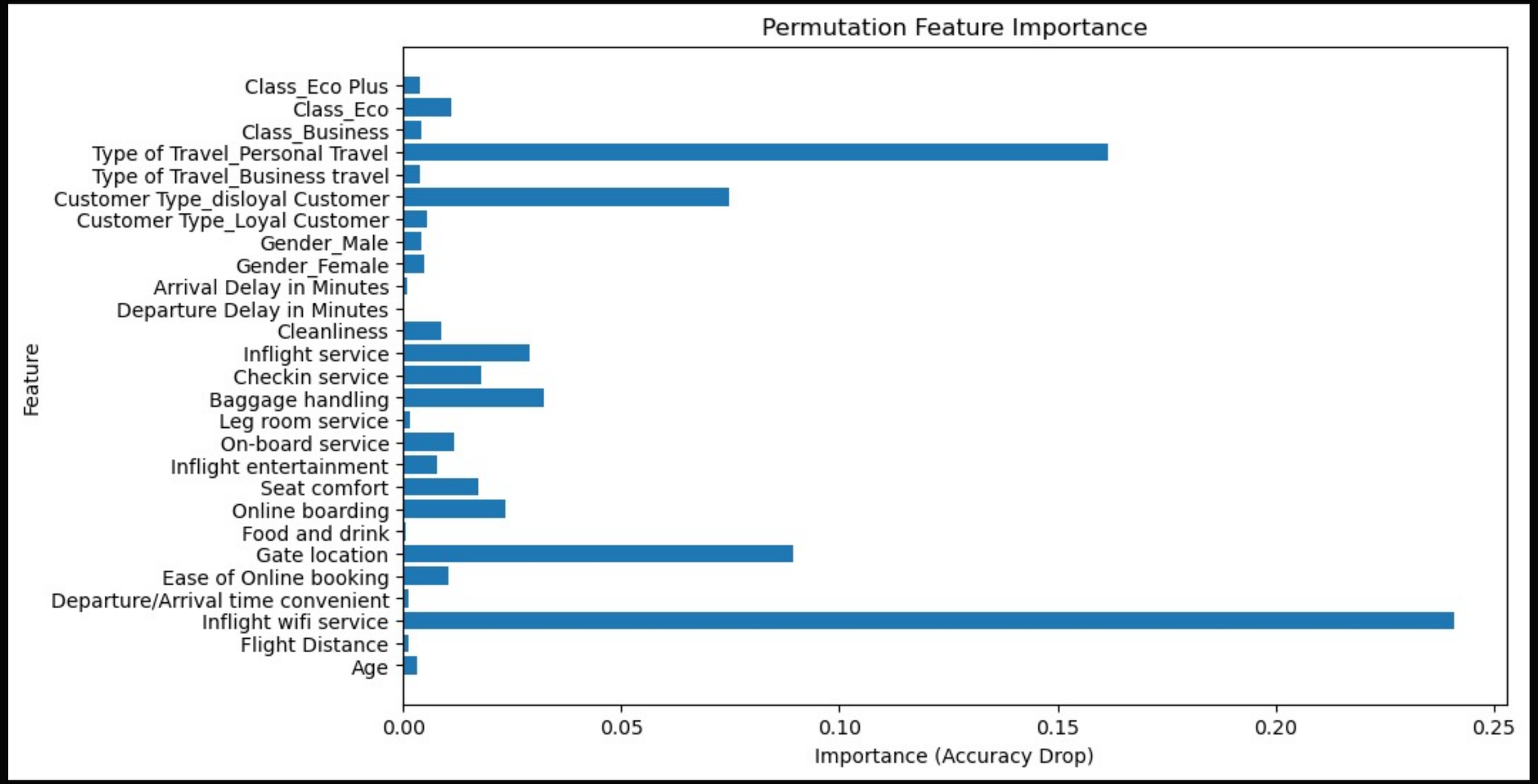
F1 Score: 0.9590

AUC: 0.9954



Satisfaction rate in Data

Feature Importance Analysis



Future Data needs for Development

1

Passenger Feedback Data

Gathering feedback from surveys, and complaint logs

2

Passenger Profile Data

Leveraging passenger information, and prediction models to forecast customer satisfaction scores.

3

Flight Operations Data

Collecting data on flight schedules, delays, cancellations, and operational efficiency.

Join us in revolutionizing customer experience

- Seeking investment for pilot deployment with an airline
- Strategic partners & early adopters