

Predicting Customer Holiday Booking Behaviour

- **Objective**

Predict whether a customer will complete a holiday booking using historical booking data.

- **Approach**

Data cleaning & feature encoding

Random Forest Classifier

Class imbalance handled

5-fold stratified cross-validation

- **Key Results**

Accuracy: **85.25%**

Balanced Accuracy: **53.68%**

Stable performance across folds

- **Top Booking Drivers**

Purchase lead time, Route, Booking origin,

Flight hour, Length of stay

- **Business Impact**

Enables early identification of high-intent customers

Supports proactive and targeted marketing

Improves customer acquisition before travel

