Predicting customer buying behaviour

Results

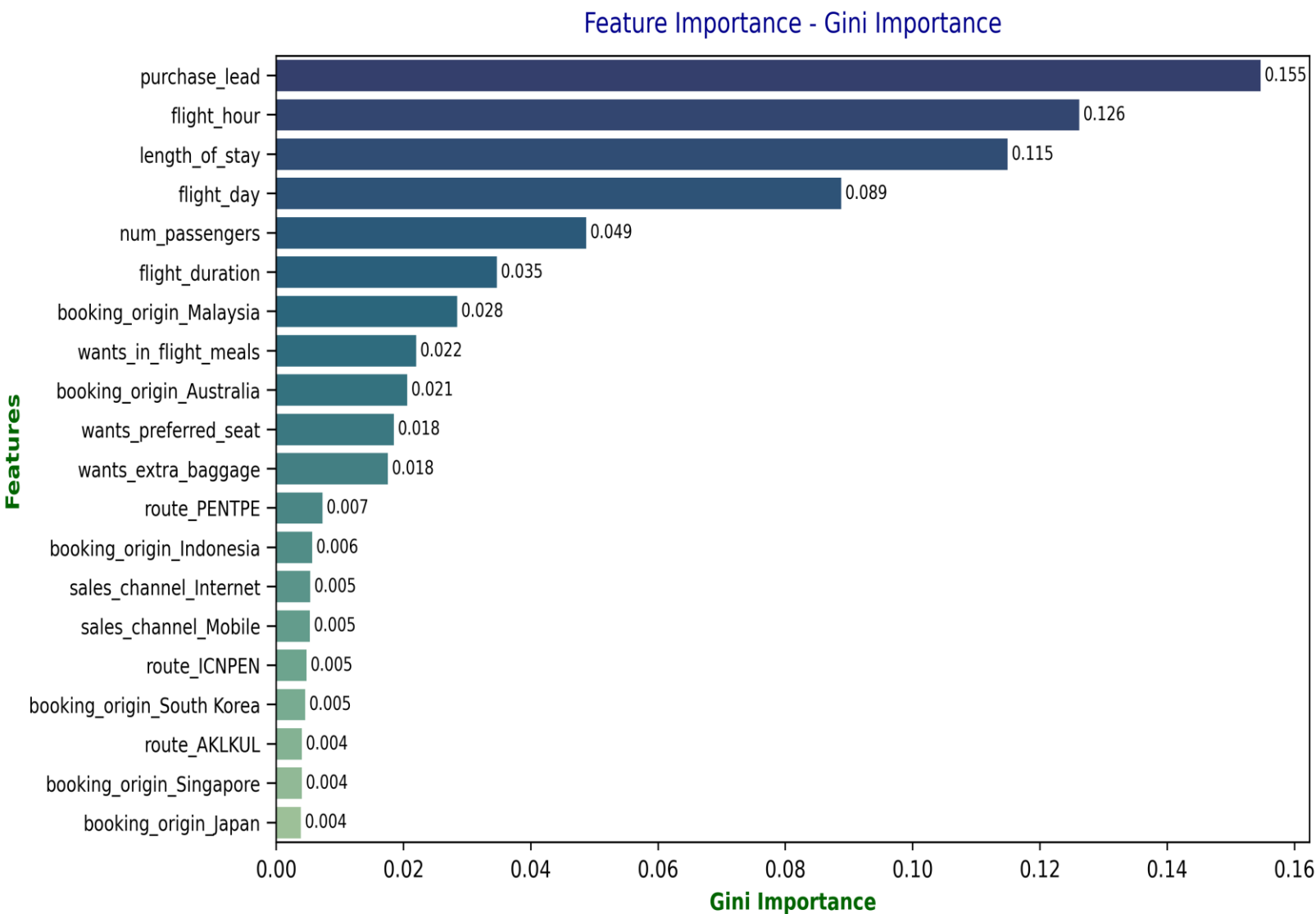## Feature Importance - Gini Importance

Evaluation:

- The most important feature was the purchase lead time, which indicates how far in advance a customer books their flight.

- Other significant features included departure time, duration of stay, day of the week, number of passengers, and flight duration.

- The Random Forest model achieved an accuracy of 86% when predicting cases where customers did not complete the booking and 54% for cases where bookings were completed.

- The lower accuracy for predicting completed bookings is due to the limited training data; out of 50,000 cases, only around 7,000 involved completed bookings.

- Greater accuracy could be achieved with more data on completed bookings.