Airbnb New User Booking

By: Team 1

Competition Overview

- launched in 2015, and the dataset used for the competition represents a sample of user activity from 2010 to 2014.

- Goal: Predict the first booking destination for new Airbnb users

- Dataset: Provided by Airbnb, includes:
  - User demographics
  - Web session records
  - Summary information on users' activities on Airbnb

- Evaluation Metric: Normalized Discounted Cumulative Gain (NDCG)

Problem Statement

Develop a predictive model that can accurately predict the first booking destination and recommend accurate listings for new Airbnb users, given their demographic information. This information can help Airbnb personalize the user experience and offer relevant recommendations to new users, potentially increasing user engagement and loyalty

Submission Critiques

- Data leakage:
  - Feature engineering before splitting the data into train and test
  - May overestimate the performance of the model on the test set

- Lack of hyperparameter tuning

- Lack of testing different models
  - XGBoost or nothing

- Think more about how the ML model will be applied
  - Accuracy is not everything

Coding Solution