Starbucks Capstone Project Proposal

Project's domain background:

The project falls under the domain of retail and specifically in the food and beverage industry. Starbucks is a well-known coffee chain with more than 31,000 locations around the world. With such a vast network, it is essential to maintain a high level of customer satisfaction and experience.

Problem statement:

The problem we aim to investigate is how to gain customer satisfaction and experience at Starbucks. Specifically, we want to predict which customers are likely to accept an offer from Starbucks application and what factors influence their acceptance.

Datasets and inputs:

I will use the dataset provided by Udacity. This data set contains simulated data that mimics customer behavior on the Starbucks rewards mobile app. Once every few days, Starbucks sends out an offer to users of the mobile app. An offer can be merely an advertisement for a drink or an actual offer such as a discount or BOGO (buy one get one free). Some users might not receive any offer during certain weeks.

Solution statement:

We propose to develop a machine learning model that predicts which customers are likely to accept the offers on Starbucks mobile application. The model will be based on a combination of customer demographic data, and purchase history. Starbucks can tailor its marketing and promotion strategies to improve customer satisfaction and experience.

Benchmark model:

To compare our solution to a baseline, we will use a simple logistic regression model that only takes into account customer demographics and purchase history. This model is a common approach used in customer retention analysis.

Evaluation metrics:

The evaluation metrics we will use are accuracy, precision, and recall. Accuracy will measure the overall performance of the model, while precision and recall will measure the model's ability to correctly identify customers who are likely to return to Starbucks.

Project design:

The project will be divided into the following stages:

Data collection and cleaning: We will use the dataset provided by Udacity to solve this problem.

Exploratory data analysis: We will explore the dataset to gain insights into customer behavior and identify patterns.

Feature engineering: We will create new features by combining customer demographic data, purchase history, store location, and external factors.

Model development: We will develop a machine learning model that predicts which customers are likely to accept offers. We will train and test the model using the dataset.

Model evaluation: We will evaluate the performance of the model using accuracy, precision, and recall metrics.

In conclusion, this project aims to improve customer satisfaction and experience on Starbucks mobile app developing a machine learning model that predicts which customers are likely to return. The model will be based on a combination of customer demographic data, and purchase history. By identifying which customers are likely to accept offers, Starbucks can tailor its marketing and promotion strategies to improve customer satisfaction and experience.