

Capstone project proposal

Problem Identification

Anticipating consumer needs and preferences is the goal of any business. If you have data that can help you improve your chances of success on this task, you should take advantage of this leverage.

Recommendation systems are the probable solution to this problem by using historical data from the consumer or anybody with similar features, behavior, or consumption habits.

Problem statement formation

The project's goal is to create a recommendation system capable of suggesting new tracks based on the existing tracks in the playlist of any user of music streaming.

Context

I'm using data publicly available from Spotify through their API Spotipy. I gathered playlists of users in the USA for the years 2018 to 2021.

Using the tracks of each playlist, I will suggest the new tracks and check if the user is accepting the suggestion.

Criteria for success

I will use one part of the playlist once I miss the user's interaction to check if the user is enjoying the recommended tracks. Then, I will compare the suggestion against the remaining tracks of that playlist.

Scope of solution space

The solution must work adequately for the Spotify data, but the methodology can be transferred to any problem where you have the users' data and their "consumption."

The initial approach for the recommender is to use Collaborative-Filtering, but other methods must be tested.

Constraints

The use of the "historical" data does not give us instant feedback, so we will need to split the playlist to evaluate the performance of the recommender.

Stakeholders

Business owners willing to use data to suggest more products or services to their customers.

Data sources

API Spotipy