

ANIME MUSIC RECOMMENDER

Recommend anime songs based on your favorite Spotify song

AVC Project 2022 Simon Zhu



Problem Statement



Recommend anime songs that are like user's input song



Showcase diversity in anime music



Pique interest in anime industry



World domination through anime





Anime Music Recommender

song name

artist

Search

Note that if the table below does not change, then it means that your search returns no results on Spotify!



Source: Google



Data + RDS



Kaggle Dataset

Clustered songs.csv

RDS

Web Flask App

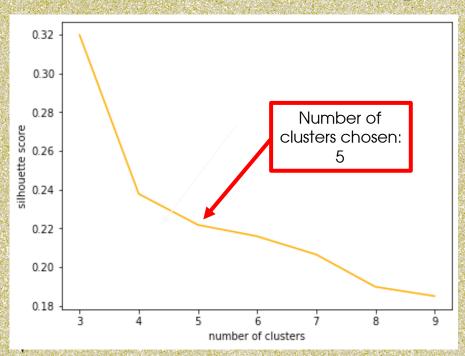
A Kaggle dataset contains about 500 different anime songs collected through Spotify API. Each song has features such as danceability, valence, tempo, acousticness, instrumentalness, liveness, and etc.

The model assigns the 500 songs into clusters based on similarity. The information of each song (including features and cluster id) is stored in a csv file, which is then persisted into an RDS database.

The App receives the user's input, extracts its features via Spotify API, goes to the RDS database, finds the closest cluster centroid to the song, and then return the top 10 most similar songs to the input from the cluster.

K-means clustering achieves success





Offline Model

Model output is used for the web app

Silhouette Score

Silhouette score of the $test_set = 0.32 >= 0$

K-means Model

Assign 500 songs into 5 clusters - a balance

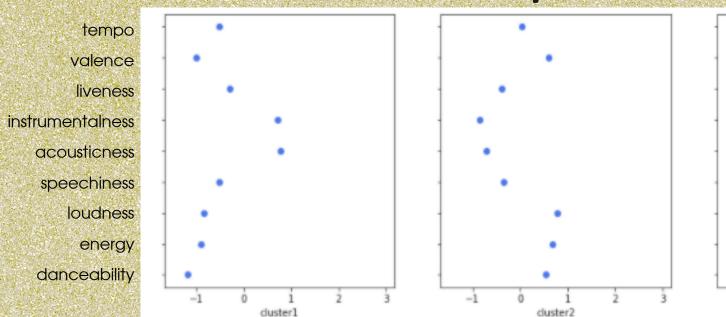
Business Success

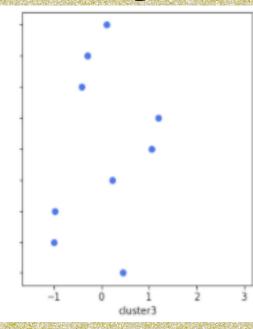
User feedback (rating) and click-through rates



Captures diversity of music, but also has relatively good model performance

Clusters show diversity in anime songs







Instrumental, acoustic, calming songs

27.3% of all

Energetic, courageous, fast songs

29.9% of all

Instrumental, acoustic, groovy songs

20.8% of all

Thank you for listening!

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