



Spotify Recommendation System and Streamlit Web App

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Project Overview and Goals

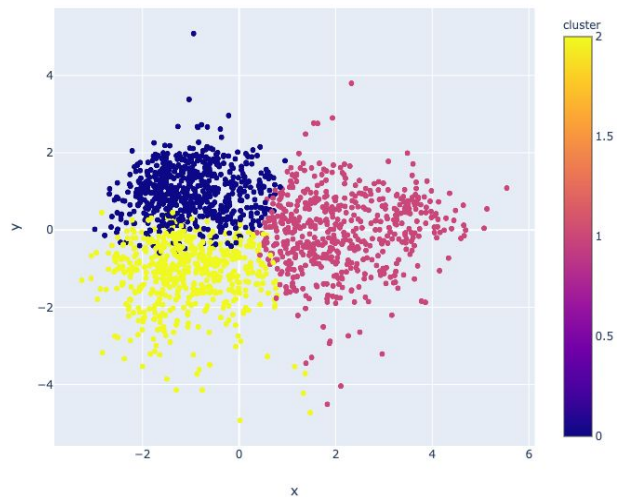
- Providing song recommendations from an artist's Spotify playlist
- User suggests any song and is provided similar playlist tracks
- Accurate recommendations increase artist Spotify followers



Project Data

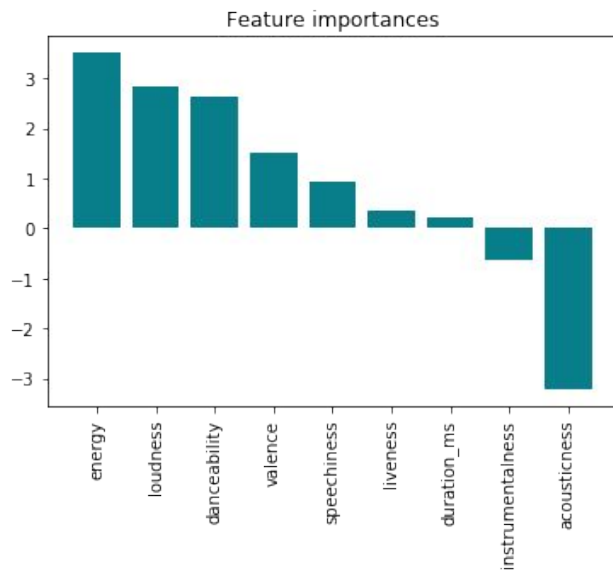
- 1700+ song playlist from Four Tet, producer and DJ (555,000+ followers)
- Each Spotify track contains numerical audio features (Danceability, Energy, etc.)

Visualizing Songs as Data Points

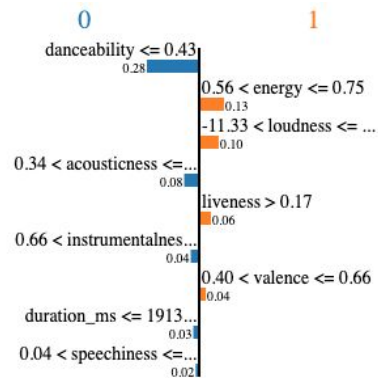
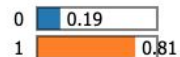


- Dot represents playlist song
- Colors represent groups of similar song type
- Finding closest songs to new user suggestion

Visualizing Audio Features



Prediction probabilities



Feature Value

Feature	Value
danceability	0.23
energy	0.69
loudness	-9.12
acousticness	0.47
liveness	0.34
instrumentalness	0.81
valence	0.50
duration_ms	102080.00
speechiness	0.06



Designing Streamlit App

- Embed playlist from Four Tet
- Sidebar to adjust audio features or text input for songs, closest recommendations will be displayed
- Embedded audio player

[Let's go to the app](#)



Business Recommendations

- Use model in tandem with Spotify's current suggested artists and songs
- Deploy with desktop and mobile apps
- Engagement between Spotify users and artist profiles



Future Work

- Additional Spotify metrics (ex/ popularity)
- Playlists of different sizes
- Artist selection (number of followers, musical genre)



Thank you

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<https://github.com/JonahFlateman/Spotify-Recommendation-System>