

# Daltonify: An Audio Feature Based Recommender

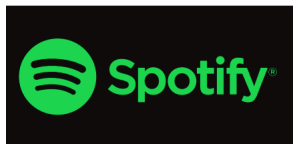
Regene M. DePiero

General Assembly

*regenedepiero@gmail.com*

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# Background: How Spotify Recommends New Music



Spotify currently uses a mix of

- **Collaborative filtering** comparing behavior to other people's taste.
- **Natural Language Processing (NLP)** analyzes the text in each song in addition to crawling for articles/news online.
- **Audio Analysis** uses raw audio to define features to compare songs.

# The Problem for New and Local Artists

How do you as a new artist (or more local artist) compete with existing music in Spotify?

How can you get your music introduced to new listeners?



# The Solution: Exploit Spotify's Algorithms!



- When users listen to tracks from several artists, Spotify tracks this and uses it to recommend tracks or artists to other users.
- By associating your tracks with more popular artists, you can increase the number of users Spotify recommends you to.
- An easy way to do this is by creating a playlist so your music is associated with similar sounding tracks from more popular artists.

# The Inspiration: Dalton & the Sheriffs



They used a rough version of this method (done by hand with a lot of guessing) to increase daily streams after their album was released this summer.



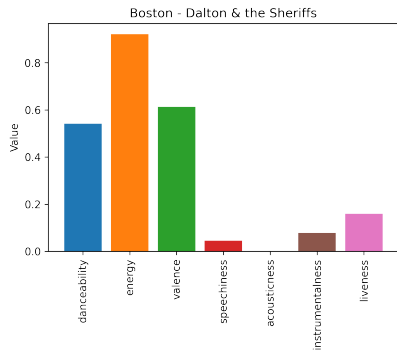
# The Goal: Can we automate this process?

Let's give you a tool that you can easily use to pull tracks from Spotify to associate your music with more popular artists.

By accessing track information on Spotify, we have built a Content-Based Recommender System to do this for you!



# The Recommender



- Spotify produces a list of audio features for all music hosted on the platform.
- Using these features, the recommender scores how well tracks in a specified genre match your track.
- The recommender then takes the scores from the top matching tracks and ranks them according to popularity.

# How it Works

- ➊ Enter in a Spotify URI or ID.
- ➋ Select a genre and number of tracks you would like.
- ➌ Generate the playlist.
- ➍ Take the list of URIs and use them to create a playlist in Spotify.
- ➎ Share the playlist with your existing fan base and friends.
- ➏ Watch your daily stream count increase!





# There's an App for That!

## Daltonify: Artist Playlist Creator

Have a new track or album that has been released in Spotify? This tool is for you! It will find similar sounding tracks by popular artists and generate a playlist associated with your track. Share this playlist with your existing fanbase and friends to exploit Spotify's own recommendation system for suggesting similar artists to users.

Note: This app is designed for use in a browser on a desktop with the Spotify desktop application.

### Enter Track URI

To get the URI for your track you need to use the Spotify desktop application. Find your song in Spotify, right click on the song, then go under Share, then to Copy Spotify URI. This will save it to your clipboard and you can paste the URI in the box below.

Enter the Spotify URI or ID for your track.

Get Track Information

### Track Information



It's too soon to tell. Playlist quality is extremely subjective.

To see how effective this recommender is, more testing is needed.

- Deploy app version using React.
- Incorporate user authorization to generate playlists in Spotify
- Add album analysis feature.
- Test other scoring methods.
- Build more complex recommender by trying packages like Surprise.

# The End