

The background is a dark blue to black gradient. It features several concentric circles and arcs in white and light blue. Some of these arcs have numerical scales: one on the left with values 240, 250, 260; one in the center with values 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260; and another on the right with values 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260. There are also some dashed lines and small white arrows pointing in various directions.

# SONG CLUSTERING

BY TANNER KOSCINSKI

# THE GOAL

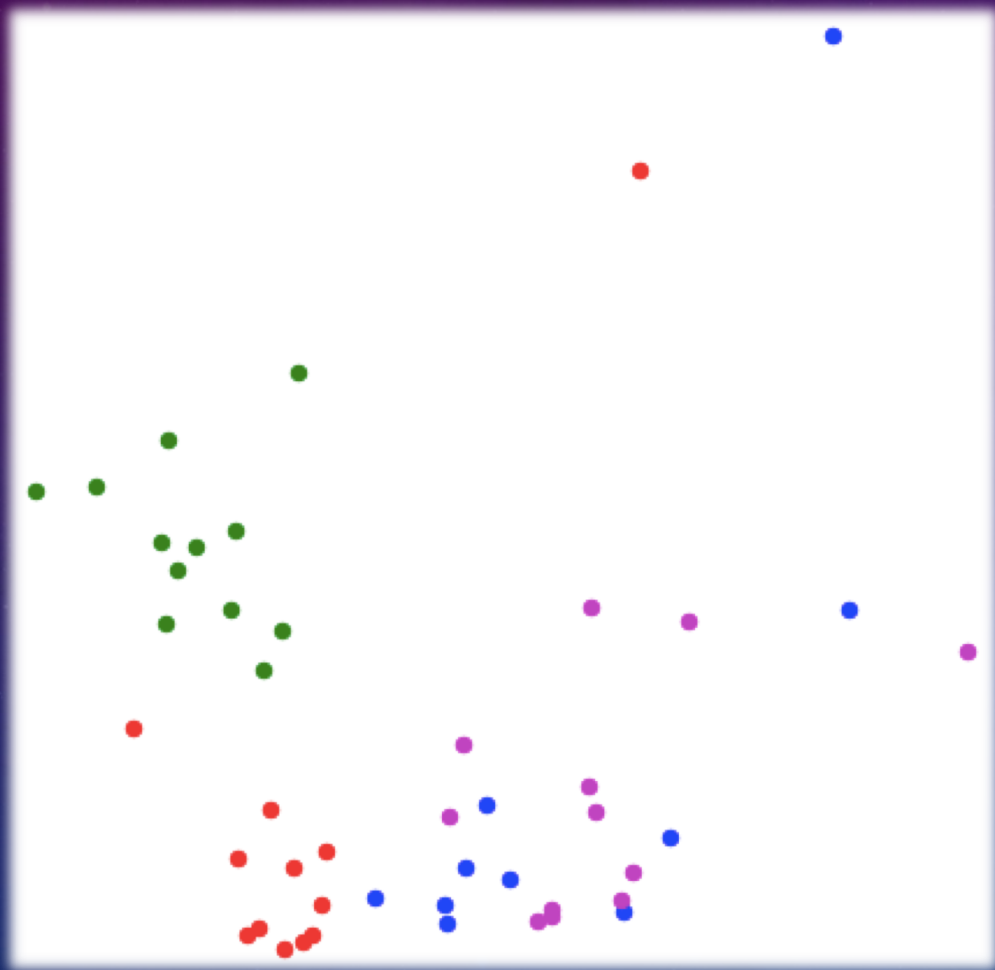
- Split a Spotify playlist into smaller groups of similar sounding songs
- Use the Spotify Web API to get an audio analysis for each song in the playlist
  - Each song is split into hundreds of segments, most are less than a second long
    - Each segment has its own timbre vector that describes the overall sound of the segment as 12 numeric values
- Describe each song as a vector of a fixed length, so different songs can be compared using their song vectors



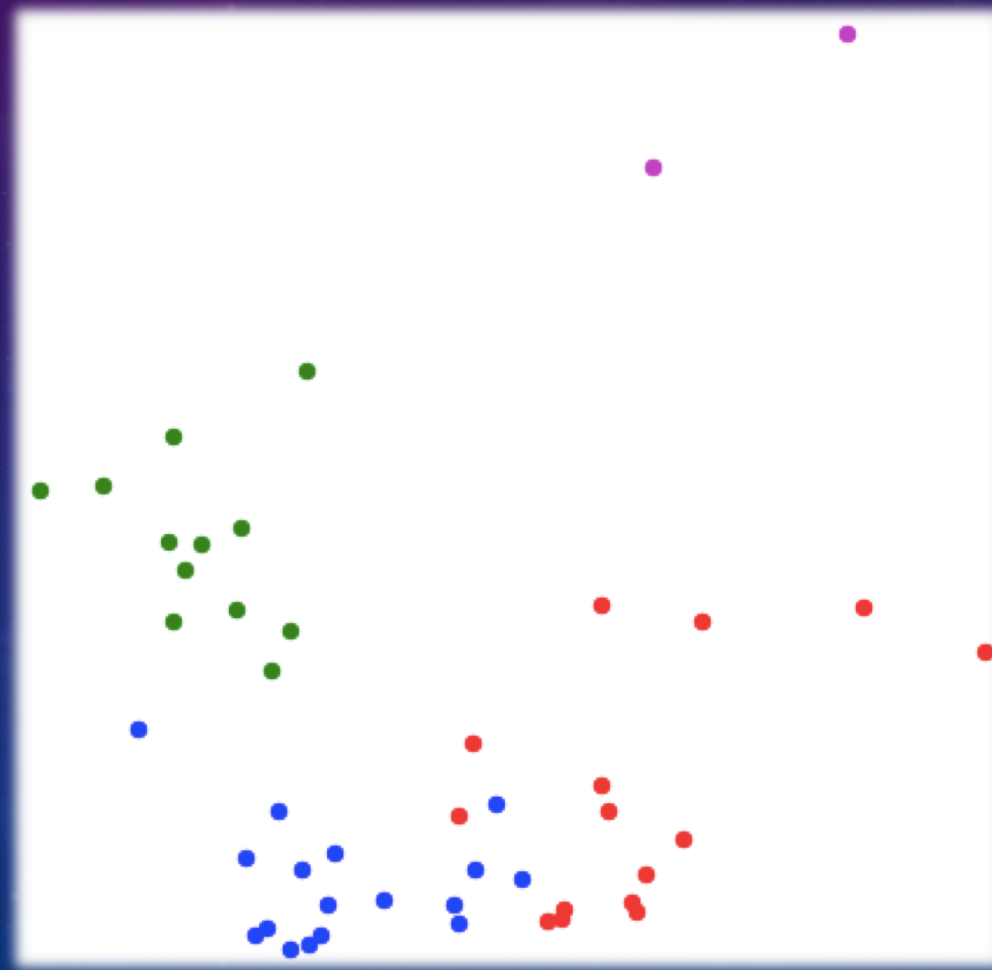


# CLUSTER THE SONGS

Actual Albums



Predicted Groups



# Spotify Song Grouper

**Owner ID**

tannerkoscinski

**Playlist ID**

7oG3OYCE79smeQ2IgqbT8a

**Number of Groups**

4

**Select Method:** ☐ Fast, Simple, Less Accurate ☒ Slower, More Complex, More Accurate

**Run**

# Song Groups

## Song Group 1

ARTIST	ALBUM	TRACK
Beartooth	Aggressive	King of Anything
With Confidence	Better Weather	Long Night

## Song Group 2

ARTIST	ALBUM	TRACK
Beartooth	Disease	Greatness or Death
Beartooth	Disease	Disease
Beartooth	Disease	Fire
Beartooth	Disease	You Never Know