

# Spotify

## Song Recommender

Sumedh Bhardwaj

# Overview

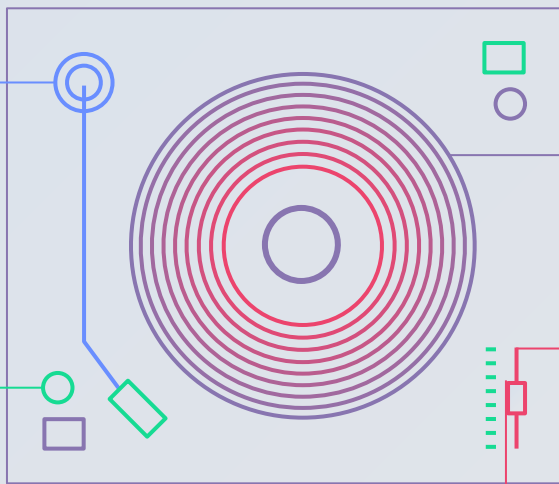
Introduction

Modeling

Dataset

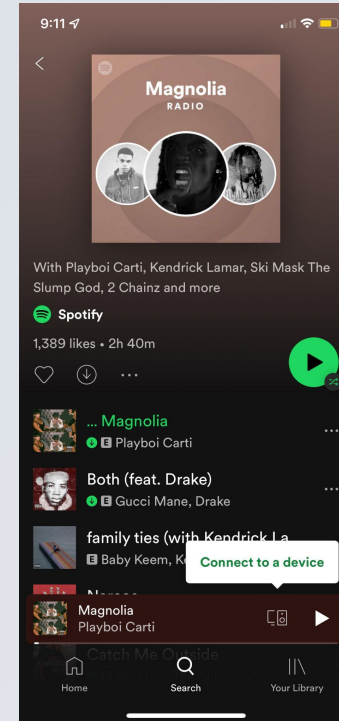
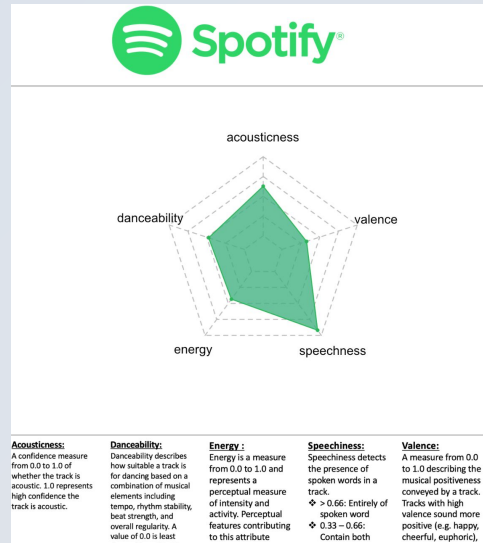
Conclusions

Future Works



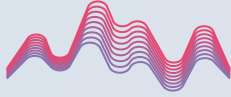
# Intro/Business Problem


- Music enthusiast
- Audio Features
- More efficient playlist making
- Why Not Use Spotify Radio?
- My own stakeholder

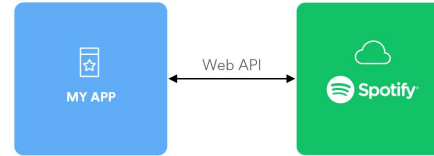


# Dataset

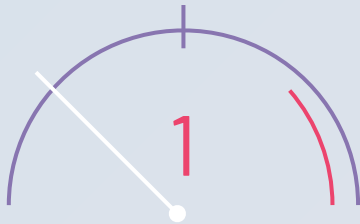
- Acousticness
- Danceability
- Energy
- Instrumentalness
- Liveness
- Speechiness
- Key
- Mode (Melody)
- Valence (Vibe)
- Tempo (BPM)
- Loudness



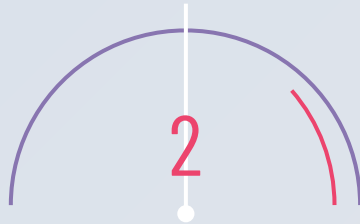
 Spotify Million  
Playlist  
Dataset



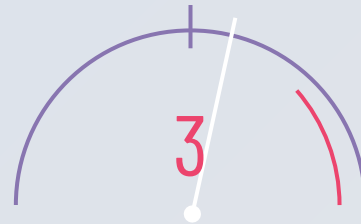
## Models Used



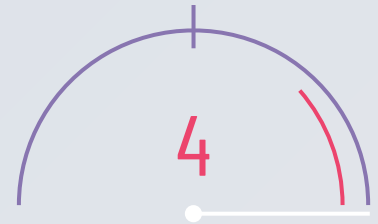
Cosine  
Similarity



Nearest  
Neighbors  
Brute Force



NN Ball Tree



KNN  
Clustering

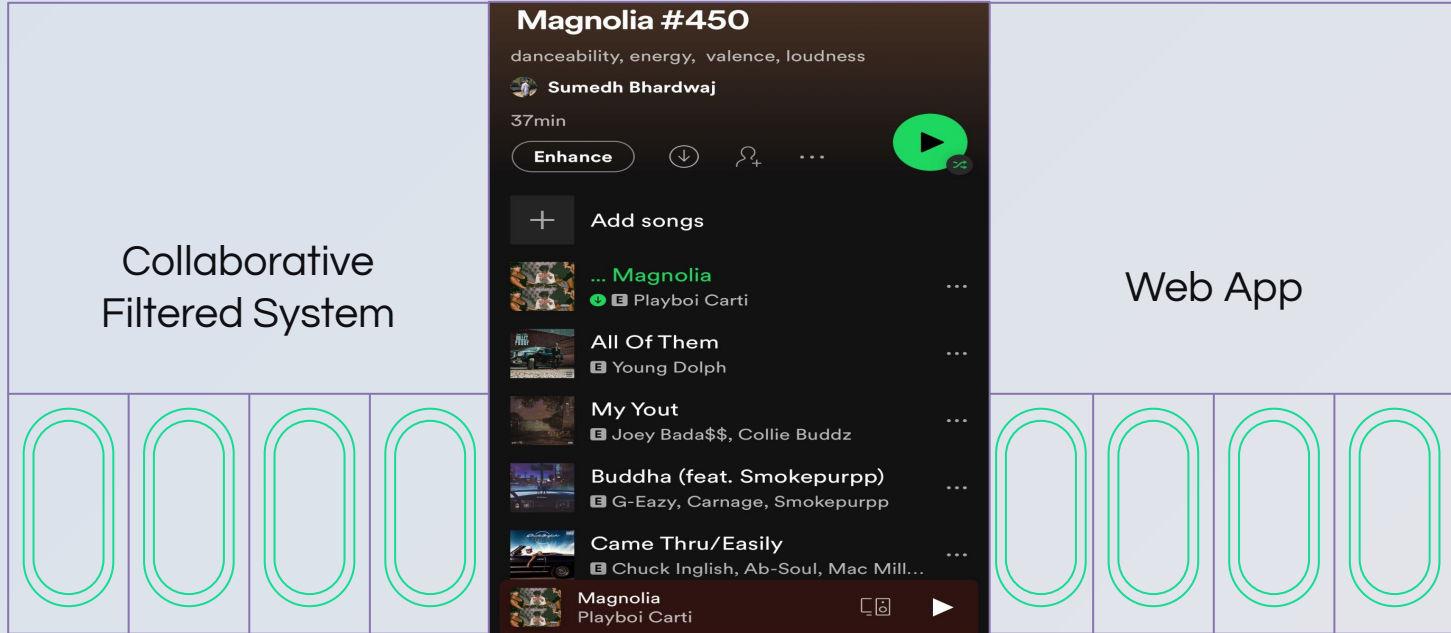
# Model Results

	Cosine Similarity	NN with Brute Force	NN with Ball Tree	KNN Clustering
0	Magnolia by: Playboi Carti	Bout 2 Blow by: Empire Cast	Bout 2 Blow by: Empire Cast	All Of Them by: Young Dolph
1	Story I Tell by: Migos	Drop It (feat. Sage the Gemini) by: Wonder Broz	High - US Radio Edit by: Peking Duk	Gotta Blast by: 22 Savage
2	All Of Them by: Young Dolph	La Misma Gran Señora by: Jenni Rivera	Drop It (feat. Sage the Gemini) by: Wonder Broz	Cazal by: Zuna
3	Touchin, Lovin (feat. Nicki Minaj) by: Trey Songz	High - US Radio Edit by: Peking Duk	Zombies Ate My Neighbors by: Single File	Sadity - Main Version - Explicit by: Too \$hort
4	Gotta Blast by: 22 Savage	Zombies Ate My Neighbors by: Single File	Gimme The Mic by: Limp Bizkit	Came Thru/Easily by: Chuck Inglish
5	Buddha by: G-Eazy	Gimme The Mic by: Limp Bizkit	La Misma Gran Señora by: Jenni Rivera	Game On by: Demo Taped
6	Campaign (feat. Future) - Charlie Heat Remix b...	Christian Lady by: Tommy Ellison	Christian Lady by: Tommy Ellison	My Yout (feat. Collie Buddz) by: Joey Bada\$\$
7	It's a Go by: Pardison Fontaine	Everything I Need by: Kutless	Hiding Out by: Pete Townshend	Phones by: SlimJesus
8	I Know - Gerry C Mix by: George Acosta	bodyache (Empress Of Remix) by: Purity Ring	Parker's Mood - 2000 Remastered Version by: Ch...	Cool Back by: Kid Ink
9	I Luv Dem Strippers by: 2 Chainz	Hiding Out by: Pete Townshend	Everything I Need by: Kutless	It's a Go by: Pardison Fontaine
10	Systems Down by: Cistrolat	Parker's Mood - 2000 Remastered Version by: Ch...	bodyache (Empress Of Remix) by: Purity Ring	Buddha by: G-Eazy
11	Broken Code - Original Version by: Gillepsy	Money Rock'N'Roll by: The Jon Spencer Blues Ex...	Money Rock'N'Roll by: The Jon Spencer Blues Ex...	Wobbin by: Packy



Cosine Similarity & KNN Clustering - Best models

# Future Plans



# Thanks!

Do you have any questions?

Sumedh Bhardwaj



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