

Mood Media

Presentation:

<https://docs.google.com/presentation/d/1DcJXiN2B8KDTRtJwrLo--7ijo6cd2QDI-wD8XUEmFs/edit?usp=sharing>

Github: <https://github.com/arsun2/mood-media>

Summary: Mood Media is a web application that allows a user to select both a mood and genre of music from drop-down menus to receive a list of relevant songs matching both the selected mood and genre. This project was done in a group of three, and my role was implementing the backend algorithm to perform the relevance matching given the user's mood and genre. As I needed to find the top 10 songs matching the chosen mood from a batch of ~40 matching the chosen genre given from the Spotify API, my algorithm worked by:

1. Stripping the text(lyrics or description) of a single song of both stopwords and punctuation.
2. Tags each word to its corresponding part of speech with the nltk part of speech tagger.
3. Calculate the similarity(Wu-Palmer Similarity) between the synonym set of mood and the synonym set of each word in the lyrics list and find the average similarity for each song.
4. Score is multiplied with a scale for each mood depending on how overall relevant that mood is overall, and the top 10 songs with a score that surpasses a relevance threshold are returned

