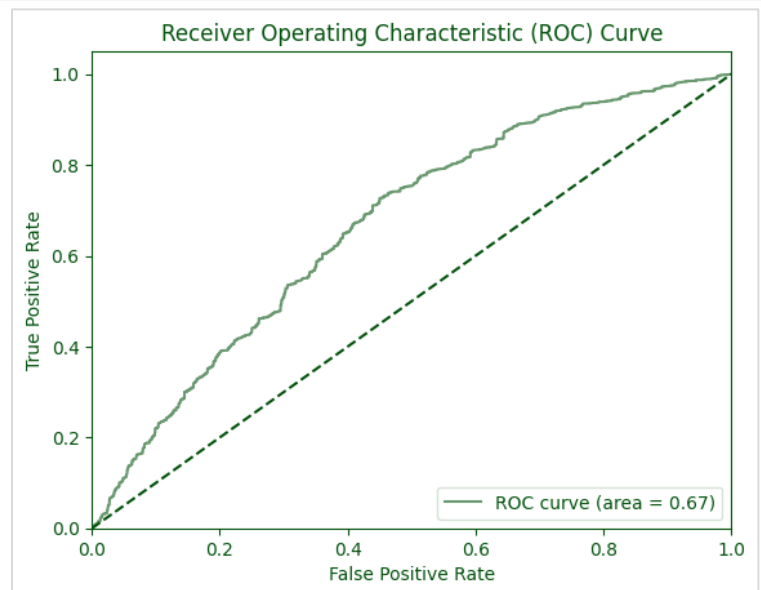# Spotify Project Report

Regional Trends and Analysis of Spotify 2024 Top Songs

Goal

Investigate how musical preferences vary across different geographical locations and build a Binomial Logistic Regression Model that will help predict a song's potential popularity based on different audio features, by leveraging the Top Spotify Songs in 73 Countries.

Results

- Europe has the most influence when it comes to top songs and artists
- In Latin America the happiest and upbeat songs are the most liked
- The variables that show higher odds of improving popularity are: loudness, mode, valence, time signature and duration
- The model worked best at predicting the songs that would be popular
- The overall accuracy shows that the model correctly predicted 72% of the instances

Top 10 Songs Audio Features

Receiver Operating Characteristic (ROC) Curve

Recommendations

Song features to keep in mind to increase the popularity of a song:

- Loudness: The overall loudness of the song in decibels. The consideration should be to have a high loudness level.
- Mode: Indicates whether the song is a major or minor key. The database shows most of the songs (53.6%) have a major key.
- Valence: A measure of the musical positiveness conveyed by the song. A high-valence song (happy, cheerful, euphoric) would increase the chances of it becoming popular.
- Time signature: The estimated overall time signature of the song. A time signature of 4 or 5 would do best to increase the chances of the song being popular.
- Duration: the duration of the song. The model indicates that a one-unit increase in duration increases the odds of popularity by 13%.