Analyzing and Predicting Top Songs on Spotify

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Motivation & Objectives

1. What makes a song popular on Spotify?
2. Predict the future popularity of songs
3. Help increase artists' success on the platform
4. Aid Spotify in curating more engaging playlists

Data

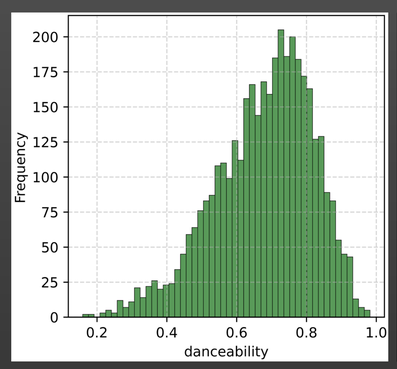
- From 73 countries
- Top 50 songs updated daily
- October 18 ... November 30 (44 days)
- Source: Kaggle, user Asaniczka

https://www.kaggle.com/datasets/asaniczka/top-spotify-songs-in-73-countries-daily-updated/data

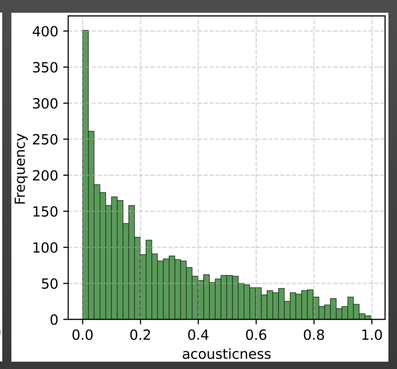
Approach & Methods

- Identify significant relationships between song features and their popularity
  - Find most frequent features among the top songs with computational statistics
- Predictive model for song popularity
  - Linear, lasso and ridge regression
  - Random forest

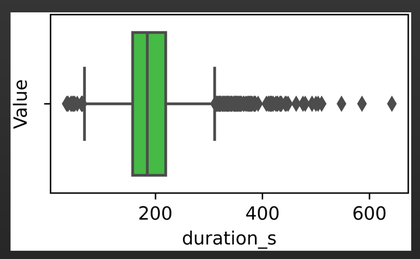
Popular songs on Spotify are...



...danceable



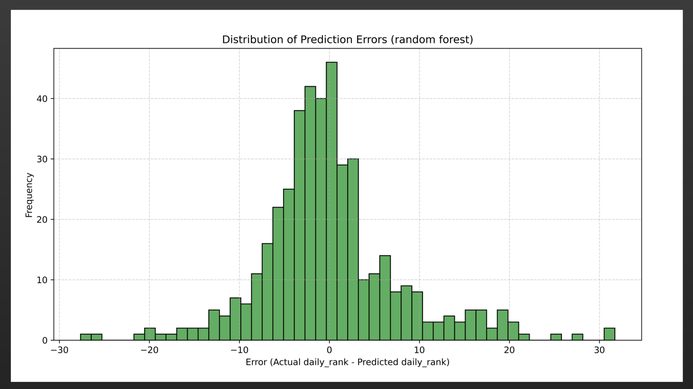
...not acoustic



...2min 37s to 3min 48s long

Predictive models

- The best regression model: ridge regression
  - MSE: 188.329; R^2 score: 0.125
- The best model overall: random forest
  - MSE: 60.494; R^2 score: 0.719



Additional info

- Top artist was Bad Bunny, whose most popular song was “MONACO”