Most important features using SHAP:

[Introduction to SHAP with Python. How to create and interpret SHAP plots… | by Conor O'Sullivan | Towards Data Science](https://towardsdatascience.com/introduction-to-shap-with-python-d27edc23c454)

A picture containing chart

Description automatically generated

I though this was a good way to show the features and their importance to determining popularity.

Chart

Description automatically generated

[How to create a seaborn correlation heatmap in Python? - GeeksforGeeks](https://www.geeksforgeeks.org/how-to-create-a-seaborn-correlation-heatmap-in-python/#:~:text=The%20following%20steps%20show%20how%20a%20correlation%20heatmap,Plot%20a%20heatmap%20Display%20it%20using%20matplotlib%20)

I saw several different form of this Heat Map, think they all said the same thing about Loudness & energy being strongly correlated and then valence and danceability being the next closes.

Chart, radar chart

Description automatically generated

[Visualizing Spotify Songs with Python: an exploratory data analysis | by Dea Bardhoshi | Towards Data Science](https://towardsdatascience.com/visualizing-spotify-songs-with-python-an-exploratory-data-analysis-fc3fae3c2c09)

This I found looked interesting and I hadn’t seen something like this before. We would need to do some investigating to understand what it is telling us.

Chart, pie chart

Description automatically generated

[Spotify Data Visualization and Analysis using Python | by Rohit Kumar Thakur | Geek Culture | Medium](https://medium.com/geekculture/spotify-data-visualization-and-analysis-using-python-4af81c5531a7)

If we have genres information and it is this split up, I recommend we do some bucketing so we have 4 or 5 largest groups and then an all other. I see that there are several different pop genres we could put together under on “pop” genre.

This is only a sample of the of pair plot graphs that were done. They actually had on for each feather:

[MattD82/Predicting-Spotify-Song-Popularity: Repository for Data Science Project (github.com)](https://github.com/MattD82/Predicting-Spotify-Song-Popularity)

Diagram

Description automatically generated with low confidence

I saw a similar idea where they had done a box and whiskers graph for each feature. If we want to use that instead of this or along with this.

Accuracies for different model types????

Chart

Description automatically generated

[github "spotify popularity perdiction" - Search (bing.com)](https://www.bing.com/search?q=github%20%20%22spotify%20popularity%20perdiction%22&qs=n&form=QBRE&=%25eManage%20Your%20Search%20History%25E&sp=-1&pq=github%20%22spotify%20popularity%20perdiction%22&sc=0-38&sk=&cvid=2DC80FD3CDA74F70A6AB01F2FEA8179C)

This project did several different Models and then compared their accuracy.