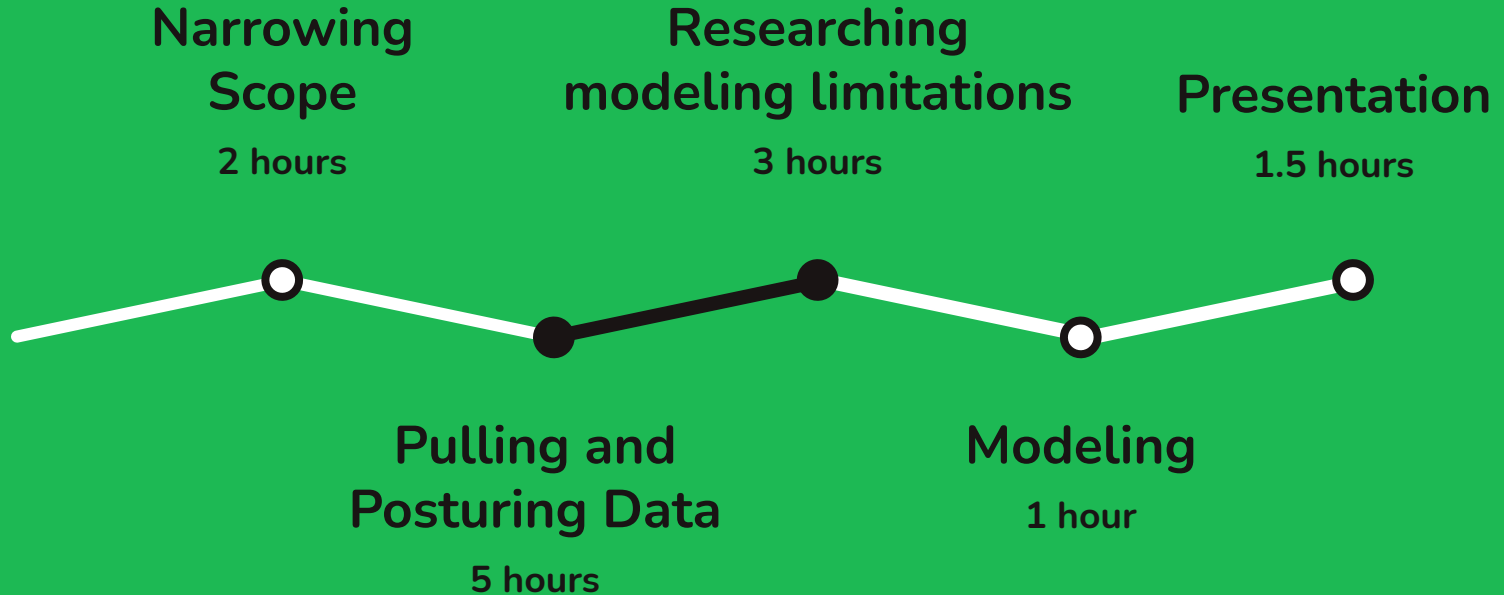


What's the Difference?

A Spotify Exercise



Work Distribution



● Indicates most challenging parts



Scope



The 1975
(*self-titled album*)
release date: 2013



A Brief Inquiry into
Online Relationships
release date: 2018

How much does a
band change in
five years?

How can we utilize
Spotify's song analysis
capabilities to objectively
understand the
differences between the
two albums?



Modeling Approach

small dataset + high explainability = ?

- Random Forest has explainability but does better with more data
- SVM does okay with smaller datasets but has much less explainability
- Logistic regression on its own does not do well with very small datasets
- Exact logistic regression with open source tools seems to only like categorical features

logistic regression with LASSO

- Prioritizes feature reduction while maintaining accuracy
- Allows for highly explainable results



Choose an artist:

The 1975

Choose two albums to compare:



The 1975



A Brief Inquiry Into
Online Relationships



Most Significant Differences

Energy

On average, *The 1975*'s songs contained **more intensity and activity**. Across the songs, *The 1975* had **more variance** in energy levels as well.

Time Signature

A majority of *The 1975*'s songs contained **4 beats/measure** while *A Brief Inquiry*'s songs contained a mix of **3 beats/measure** and **4 beats/measure**.

Liveness

Overall, *The 1975*'s songs display more characteristics of live-music playing. This may indicate **more noise or use of a range of vocals** within the tracks.

