

Lab 02 – MATH 240 – Computational Statistics

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Abstract

This lab builds a Batch file for Data Processing, and also processes JSON output, as well as ... (to be completed in later labs) in order to determine which of two collaborating artists, The Front Bottoms and Manchester Orchestra, contributed more on their collaboration song called Allen Town.

1 Introduction

In this lab, we aim to use the program called Essentia- an open-source program for music analysis, description, and synthesis in order to create data sets that describe various aspects of songs. This program processes files in .json, yet the music files we will be inputting are in the .wav format. This lab requires that files be converted into the correct format, so that they can be processed

2 Converting Files

Since there are many songs that are in the input data set, changing each song from one kind of data to a different one would take lots and lots of work. Thus, it makes sense to use a for-loop to iterate through all of the inputs, and change them upon iterating.

2.1 Exporting

Once the input data is adjusted to the proper form, it must then be written to a file and saved.

3 Processing JSON Output

Installing the json software allows a song to be processed, and certain aspects- such as loudness, spectral energy, danceability, ect.- of it to be outputted.