Music Genre Classification

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1 Motivation

1.1 Introduction

Music classification is an interesting problem with many applications, from Drinkify (a program that generates cocktails to match the music) to Pandora to dynamically generating images that complement the music. However, music genre classification has been a challenging task in the field of music information retrieval (MIR). Music genres are hard to systematically and consistently describe due to their inherent subjective nature.

In this paper, we investigate various machine learning algorithms, including k-nearest neighbor (k-NN), k-means, multi-class SVM, and neural networks to classify the following four genres: classical, jazz, metal, and pop. We relied purely on Mel Frequency Cepstral Coefficients (MFCC) to characterize our data as recommended by previous work in this field [**?**, **?**]. We then applied the machine learning algorithms using the MFCCs as our features.

1.2 Problem Statement

1.3 Our Approach

1.4 Data Retrieval

TODO alphabetically rearrange sources, and actually add all of them.

References

[1] *Chen, P., Liu, S.*. "An Improved DAG-SVM for Multi-class Classification" `http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=0566976`.

[2] *Marsyas*. "Data Sets" `http://marsysas.info/download/data\_sets`.