

CS533 Project Proposal

Description of the Problem

Music Information Retrieval is the process to evaluate music data and to extract information out of it. This information can be artist and composer information, lyrics and even the emotion of the song. Other than these, with supervised learning, one can accomplish several classification tasks. My focus on this project will be classification of the songs according to their composer and region. By this way I am planning to create a map of melodies around Turkey. The results may point out several interesting relations between the song similarities. The proposed system will be able to classify a new coming song to the most possible place that it is coming from.

Methodology

Feature Extraction is the most important concept to the decide. Although there are many different libraries for feature extraction from audio, as they are hard to learn and hard to use, I will use my own feature extraction methods. In order to do that, I will use fourier transformation that we have learnt in our signal processing class. After having the features of the music data, I can apply the common clustering and information retrieval algorithms

Expected Results

At the end of the project, I expect to have a system which can classify an incoming audio according to its region and composer.

References

1. Creating Shazam in Java <http://www.redcode.nl/blog/2010/06/creating-shazam-in-java/>,
2. Music Information Retrieval, J. Stephan Downie