Project Specification

Introduction

What is the general subject?

Comparing human made classification versus computer made classification of electronic dance music (EDM) genres (and subgenres).

Why is it interesting?

Even as an experienced EDM listener it can sometimes be difficult to determine the genre of a song you are listening to - could a computer do this more accurately? In EDM there are genres that can sound quite similar even though they are different.

Problem statement

What is the problem that is going to be investigated in the project? Try to be as precise as possible but this can be adapted at a later stage

Analyzing different methods for automatically determining the exact genre of (electronic dance) music based on audio alone and comparing the accuracy against humans performing the same classification.

Approach

How are you going to solve the problem? What is your strategy/planned approach?

1. Perform a literature analysis and find out the state of the art in detail
2. Select some interesting and suitable classification algorithms (maybe Kullback-Lieber Divergence, k-Nearest Neighbors or k-Means, Neural Networks etc.)
3. Apply the algorithms to a large and high quality dataset of EDM
4. Determine which algorithm or combination of algorithms is the most accurate
5. Perform a study with human subjects, testing how good they are at classifying songs into genres - with as similar preconditions as possible to the algorithm
6. Compare the accuracy between the computer and human classification

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References

List important and most relevant references that you have identified so far, try to concentrate on academic type of resources

These are some references we've found so far, but we shall conduct further literature studies.

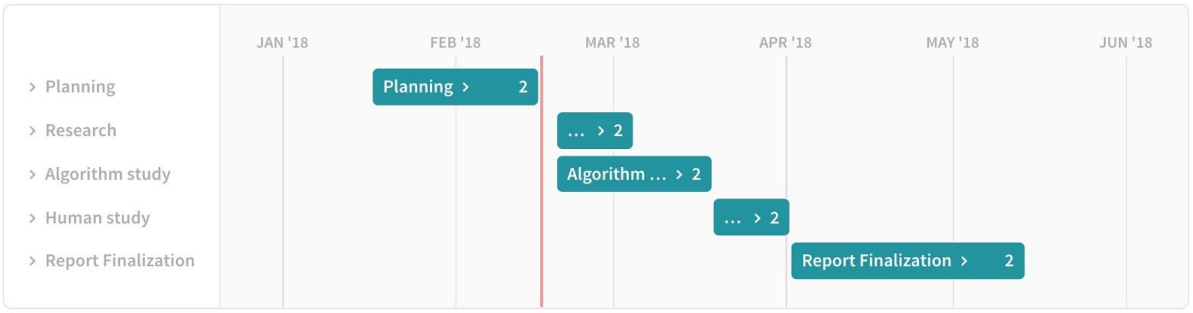
https://github.com/mlachmish/MusicGenreClassification

https://jyx.jyu.fi/dspace/bitstream/handle/123456789/13592/urn_nbn_fi_jyu-2007601.pdf?sequence=1

http://cs229.stanford.edu/proj2011/HaggbladeHongKao-MusicGenreClassification.pdf

https://www-cambridge-org.focus.lib.kth.se/core/journals/organised-sound/article/general-sound-classification-and-similarity-in-mpeg7/CA36219C978B29099D73054F30C85EA7

Time plan



Fas		Uppgift	Startdatum	Slutdatum
Planning	2	Pick a project	1/17/2018	2/16/2018
		Write a project specification	1/17/2018	2/16/2018
Research	2	Find relevant litterature	2/19/2018	3/5/2018
		Read litterature	2/19/2018	3/5/2018
Algorithm study	2	Find interesting algorithms	2/19/2018	3/5/2018
		Compare performance	3/5/2018	3/19/2018
Human study	2	Find subjects	3/19/2018	4/2/2018
		Perform survey	3/19/2018	4/2/2018
Report Finalization	2	Compile results	4/2/2018	5/14/2018
		Final touches	5/1/2018	5/14/2018

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