

Tender Assignment

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Title/Subject: Music style recognition

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Motivation/Experience

During the artificial intelligence bachelor I have always been interested in the field of sound processing aswell as prior to the bachelor. I graduated at the conservatory of Amsterdam (CvA) as keyboard player in 2012 and have been active in working with a range of sound processing and creating tools. During the bachelor I tried to apply my interest to a couple of projects and to extend my understanding of the subject by following appropriate courses. I did a course on digital signal processing and a speech recognition/synthesis course. In the first year project we made a NAO robot dance using tempo recognition. In the second year project (for Elephant Candy) we clustered samples of Electronic Dance Music (EDM) based on similarities in features using four different methods (k-nearest-neighbour, hierachical clustering, expectation and fuzzy logic).

Approach/Expectation

The project description is quitte open as to the methods to use for the project, but I'm interested in using neural networks to distinguish which feautures or feature extraction methods are usefull for classification. First of all because I like to dive a bit deeper in the workings and application of neural networks, since it is a much used technique. Second because it would be interesting to narrow down useable features, since in the project for Elephant Candy we had over 150 different features to work with, but a lot of them turned out to not be usefull (at least not for that clustering task). I feel this can be an achievable goal and have relevance aswell.