

Week 5 Meeting

2357351G - MSci Half Project

What I've done this week

- Gathered a number of papers related to quantifying timbral descriptions of sound and had a quick skim of a few of them.
- Watched YouTube presentation of a model that uses a VAE to simplify EQ controls called *flowEQ*.
- Did some analysis of the *SAFE-DB* dataset.
- Clarified points about *Black-Box DDSP* paper (Fx-layer and inputs).
- Did some more reading into the *AudioCommons* timbre extraction models. The implementation details of the model are slightly vague as there is no output paper, however there is an evaluation report.
- Read and summerised *A Method for Rapid Personalization of Audio Equalization Parameters (2009)*
- Also read *SAFE: A System for the Extraction and Retrieval of Semantic Audio Descriptors (2014)* and *Timbral Attributes for Sound Effect Library Searching (2017)*.

Questions

- Can the AudioCommons timbre model be used despite there being no peer-reviewed research paper that has been published? Or is an evaluation report not enough to justify its use?
 - **Have since seen it used in a couple of papers.**

Plan for next week

- Read some more papers on quantifying timbral descriptions.
- Look to see how the SAFE-DB dataset has been used in subsequent papers and if there are any issues that have been noted or if data augmentation has been performed.
- Start *Generating Sound with Neural Networks* tutorial series.
- Create prototype architecture diagram to show how word embeddings could be included in a Black-Box DDSP model.

Where I am in schedule

- Still searching for suitable datasets - particularly if timbre descriptions need to be used.
- Doing reading into whether quantifying these descriptors is possible.
- Learning how audio pipelines are implemented in neural networks.