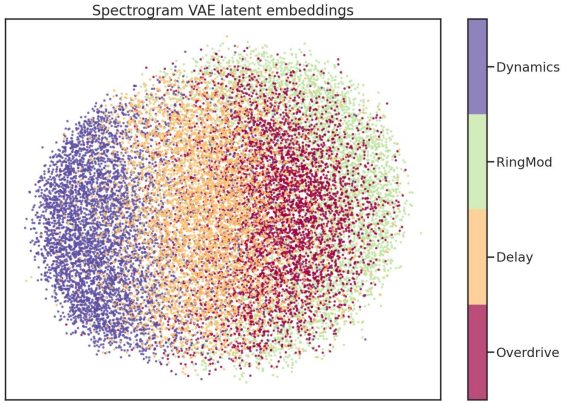
Week 10 Meeting

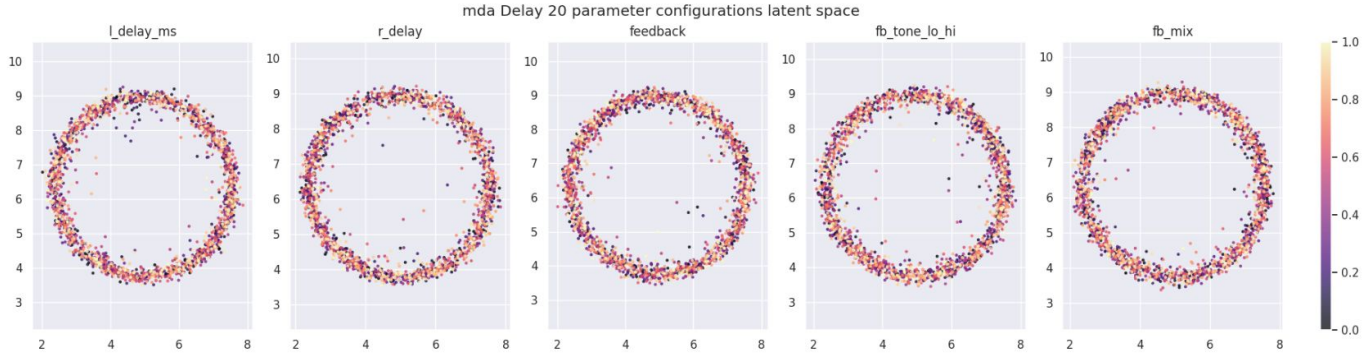
2357351G - MSci Half Project

What I've done this week

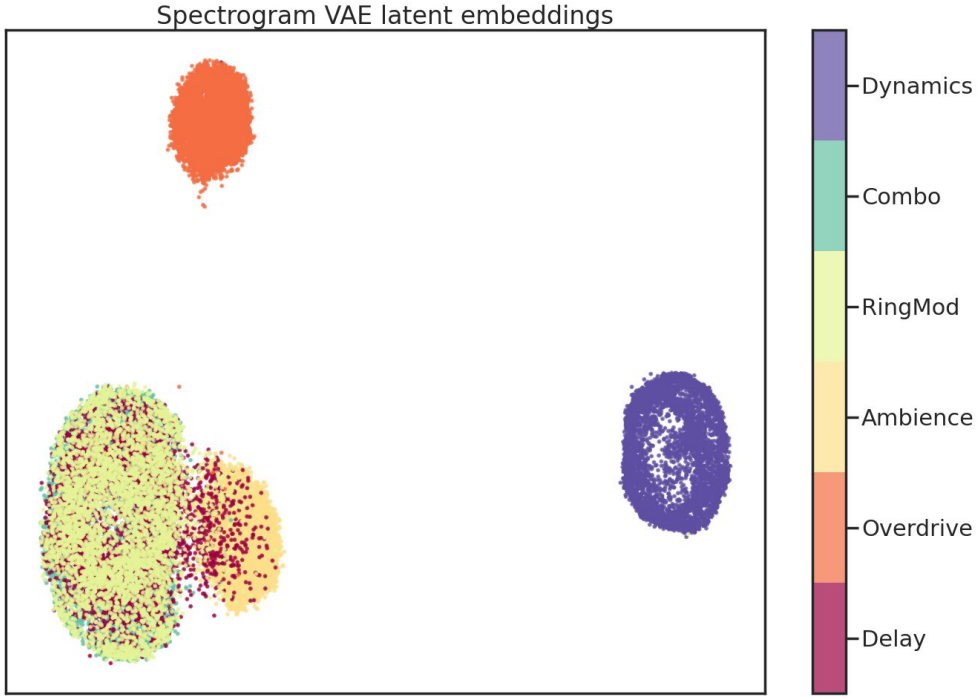
- Modified Spectrogram-VAE implementation to reconstruct a single spectrogram with a smaller latent dimension.
    - Had issues balancing KL and reconstruction loss, so implemented cyclic annealing for the β-value which seemed to help.
- Started implementation of latent space controller.
- Continued writing report.

Low KL-loss model

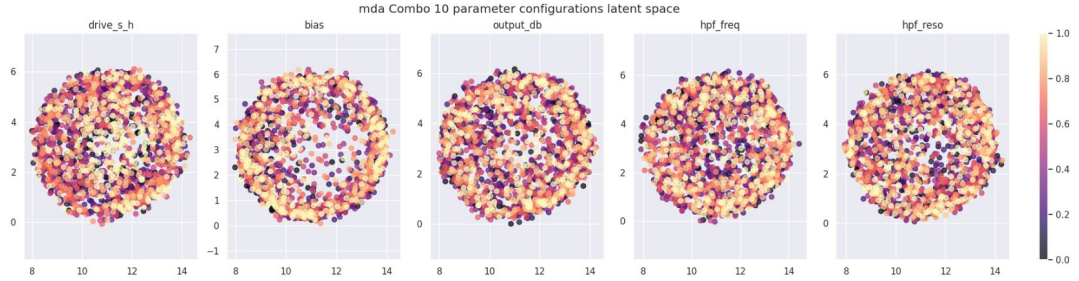


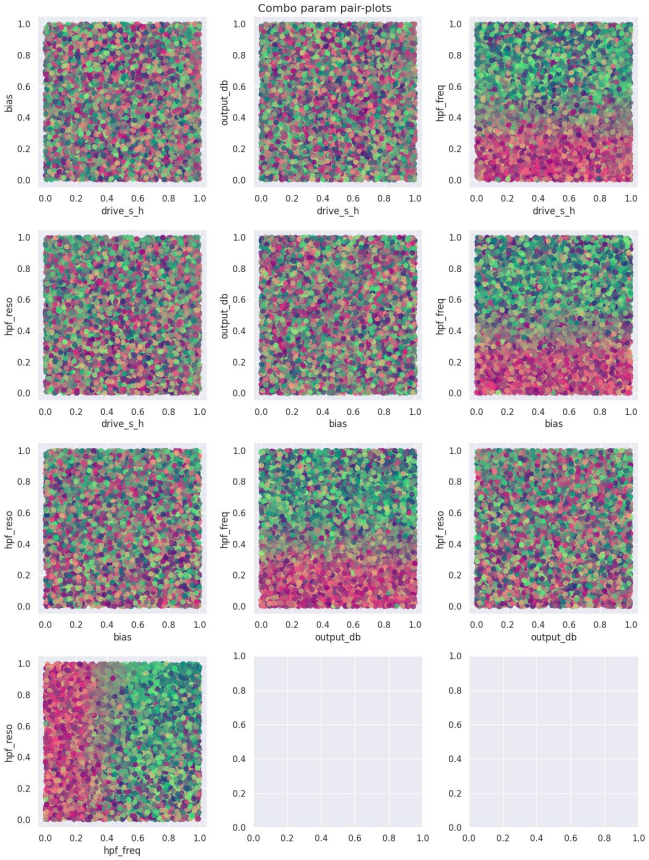


Best model latent space

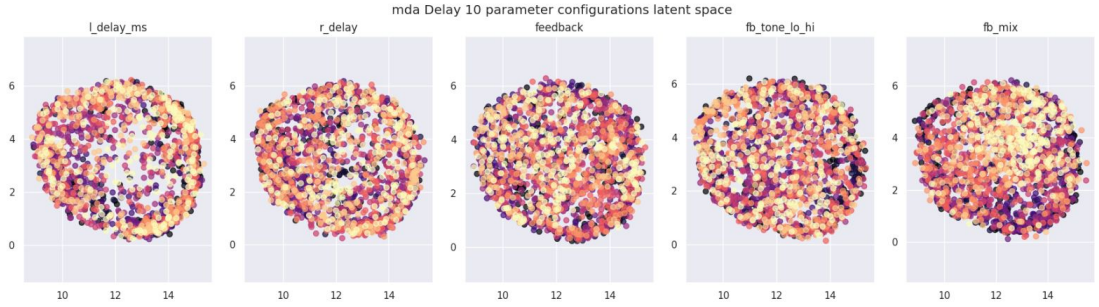


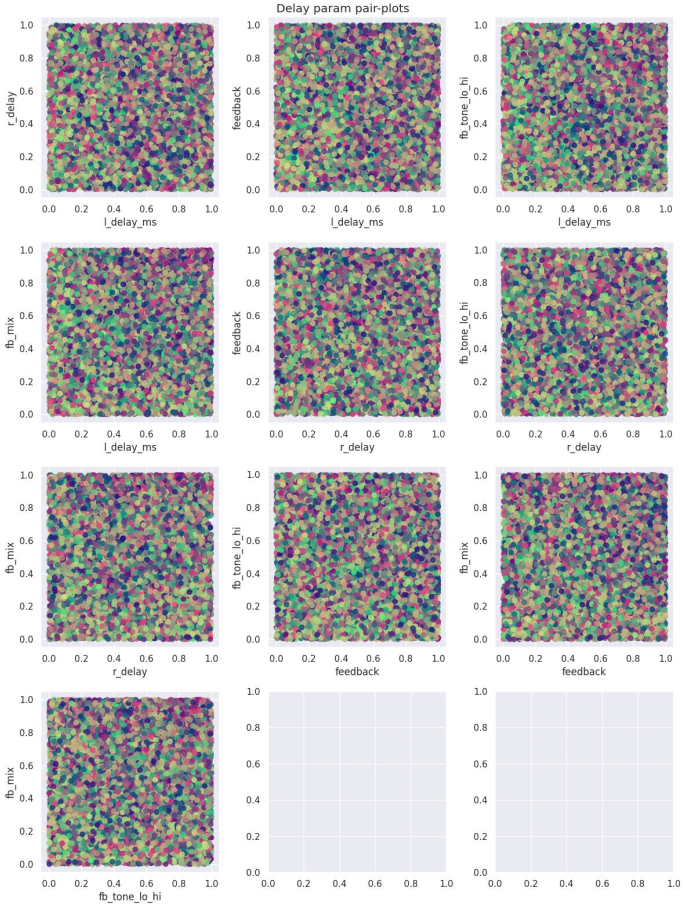
Combo Latent Space



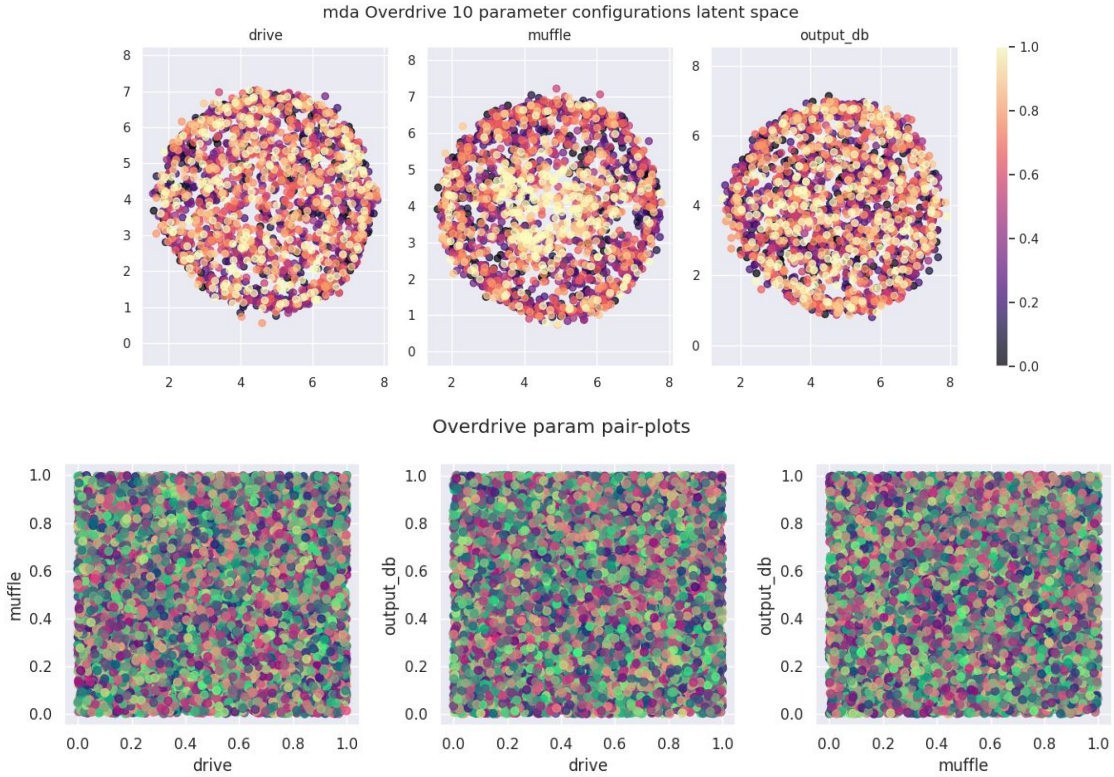


Delay Latent Space

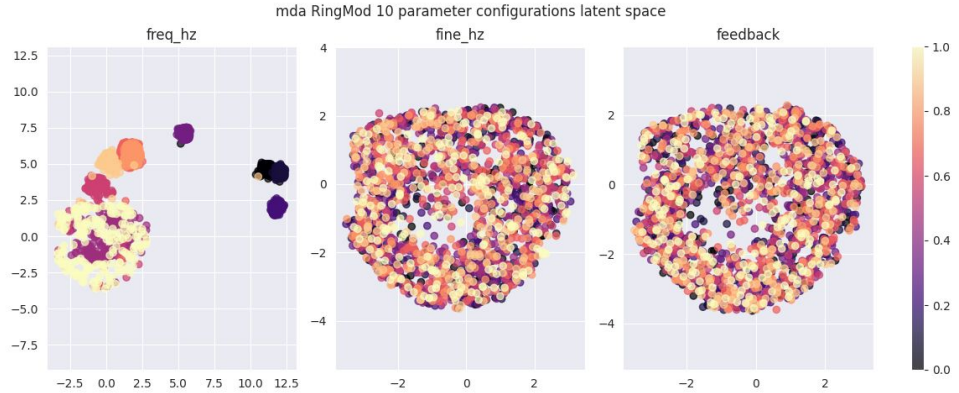


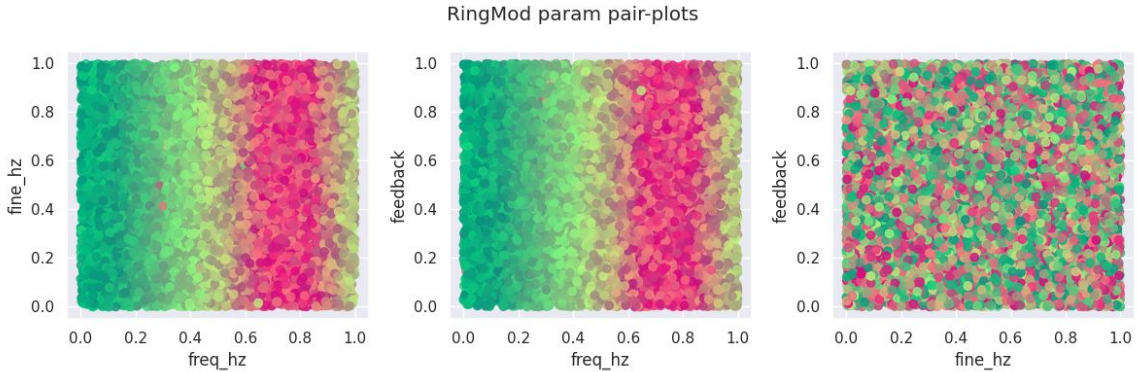


Overdrive Latent Space

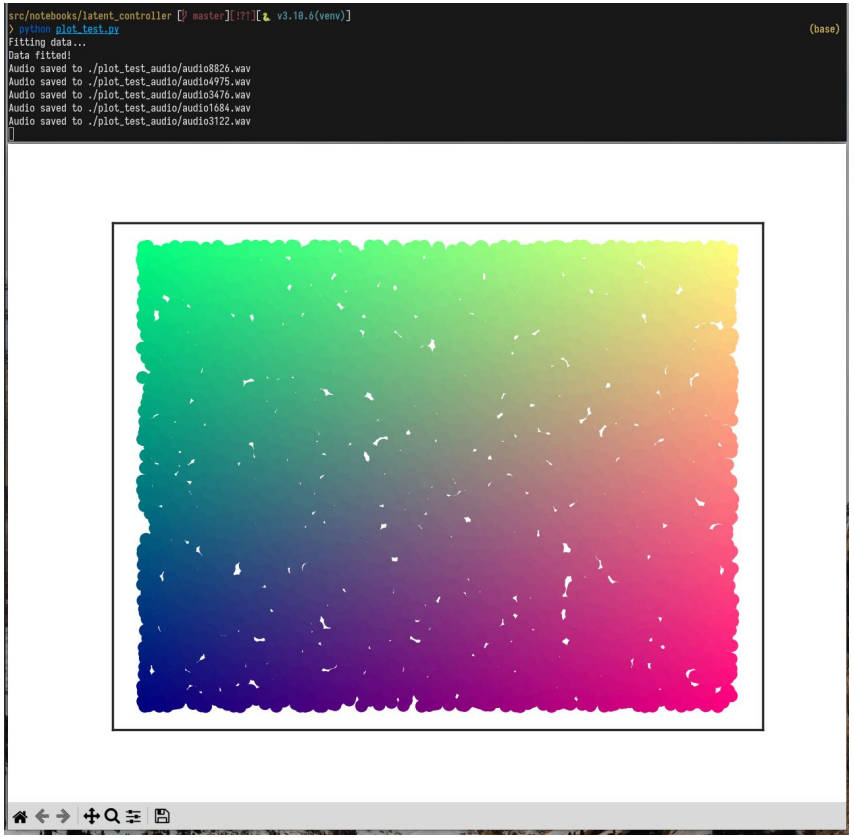


RingMod Latent Space





Latent Space Controller



Questions

- Do you know roughly when the project presentation will be?
- For the latent space controller, I was hoping to have an interface similar to that in the linked video in the report. I.e. the user can just click on a datapoint and the audio automatically play. However, I'm not sure if something like this is possible with matplotlib? I've tried adding callbacks with IPython.display, but this doesn't seem to work.

Plan for next week

- Finish implementing latent controller interface.
- Train end-to-end model for each effect.

Where I am in schedule

- Still pretty poor structure to latent space of Spectrogram-VAE, not sure if there is going to be any dramatic improvement in the next week before I have to move on the evaluation.
- I would like to get a rough draft of the final report in by the 31st March for feedback.