

Contributions to the Machine Learning Project

January 2020

1 Ninon Devis

- Implementing current working VAE:
`vae_main.py`, `vae_model.py`, `loss_train_test.py`, `comparison.py`
- Linking and editing `loader.py` with the VAE
- Implementing low level VAE for MNIST
- Implementing trial `database.py`
- Reorganising and editing deliverable git for the VAE part (as it sounds important included the README.md)
- Report writing (section Abstract, Introduction, Variational Auto-encoder (with Cyril Lavrat), VAE as a Granular synthesizer, Results, Conclusion and Perspectives)
- Final corrections of the report

2 Cyril Lavrat

- Implementing VAE notebook on MNIST digit recognition. `Handwritten_Digit_Recognition.ipynb`
- Implementing trial audio slicer for training `Database_prototype.py`
- Implementing trial `database.py`
- Git moderator (merge conflicts)
- Rapport writing (Variational auto-encoders parts : 2.2.2 to 2.5)
- Proofreading and corrections
- Figure designer with Tikz

3 Emmanouil Plitsis

- Report Writing (section implementation and design of the synthesizer).
- Python audio engine controlled by OSC (2 versions): `recover_model.py`, `recover_model_batch.py`
- Pure Data OSC controller: `simple_OSC_control.pd`
- Proofreading the report, corrections.
- Writing the README file in the git.

4 Alice Rixte

- Report writing (section implementation and design of the synthesizer)
- Coding of a sketch of external that would pilot the Python VAE.
- Some debugging on the Python code.

5 Lydia Rodriguez de la Nava

- Implementing VAE for MNIST database
- Failed attempt to make a working CNN
- Report corrections