

Level 4 Project

Week 8/21

Schedule for weeks 7-8 (20-21)

- Classifier to Python file
 - Like I did for autoencoder visualisation
- Evaluation
- Dissertation writing

Dissertation structure

- Introduction
 - Motivation
 - Biological
 - Technical
- Background
 - Immunology research
 - Which papers? → ...
 - Autoencoders?
 - UNet?
- Materials & methods
 - Dataset
 - Setup
 - Picking set of images
 - Pre-processing
 - Image segmentation
 - For background correction
 - For interaction analysis
 - Autoencoders
 - For dimensionality reduction
 - For regression

Dissertation structure 2

- Implementation
 - System diagram
 - Autoencoder
 - Particular choices
 - Image segmentation
 - K-means
 - Thresholding
 - Regression
 - Overlap calculations
 - Particular choices
- Evaluation
 - Autoencoder
 - Reconstruction
 - t-sne/UMAP
 - Regression
 - Scatter plot
 - Distribution
 - Error
 - Metrics
- Conclusion
 - Uses
 - Future work
 - UNet