

Assignment 1

Week beginning 27th January 2025

- 1) What is overfitting, and suggestion a mitigation strategy? What is 'training Set' and 'test Set' in a Machine Learning Model? How much data will you allocate for your Training, Validation, and Test sets?
- 2) Draw two rough graphs showing a)overfitting and b)underfitting.
- 3) Give an example on a method used to mitigate against overfitting?
- 4) What is a perceptron?
- 5) What is Neural Network?
- 6) What is Deep Learning?
- 7) What are the differences between Machine Learning and Deep Learning?
- 8) Give an example of a machine learning algorithm.
- 9) Give an example of a neural network algorithm.
- 10) Give an example of an ethical consideration of a facial recognition neural network.