WS8 - Task 1

The code provided in WS6 –Task 1 could be used to obtain an Autoencoder like functioning. **We will see a proper AE algorithm in Lecture 10. The example here is just to give you an idea.**

Download the “WS8_codes” folder

The provided AE_MNIST code will extract and pre-process the dataset

The provided code also does the post-processing,

For your ease, a few lines are left empty for you to fill.

WS8 - Task 1

1.1. Complete and execute the code for 10, 20, and 30 hidden neurons (HNs)

1.2. Compare and explain these three models.

1.3. Compare and explain the results, in terms of computational complexity and speed e.g. 10-HNs vs. 20-HNs vs. 30-HNs

1.4. Explain the difference between WS6-Task 1 and WS8-Task1

WS8 - Task 2

2.1. Work out the covariance between the x and y dimensions and explain the results.

X	10	40	18	Student number (last 2 digits e.g. 54)
Y	41	15	29	24

2.2. Calculate for a 3 dimensional data set

X	1	-1	4
Y	2	1	3
Z	1	3	-1