Problem set 2 Normalisation & Classifier evaluation

Excercise 1

Assume that the height of a student takes the following values [170, 160, 155, 165].

- 1. Use [0,1]-scaling to transform the four points.
- 2. Use Gaussian normalisation to transform the four data points.

Excercise 2

A binary classifier was evaluated using a set of 1000 test examples in which 50% of all examples are negative. It was found that the classifier has 0.6 recall and 0.7 accuracy. Write the confusion matrix.

Excercise 3

Given the confusion matrix for a 3-class classifier

$$\begin{pmatrix} & \text{Car} & \text{Train} & \text{Cycle} \\ \text{Car} & 8 & 3 & 6 \\ \text{Train} & 2 & 4 & 2 \\ \text{Cycle} & 2 & 4 & 12 \end{pmatrix}$$

- 1. Calculate Precision, Recall, and F-score for each of the 3 classes
- 2. Calculate Macro F-score