**Weekly report**

This week we focused on implementing the Tensorflow batching system on our data. Meanwhile we tested the networks ability to train itself on just 3000 images for several epochs. Although this training doesn’t generalise to other data, it does demonstrate the networks ability to physically learn.

This is done for two network structures

**Basic input and output layer, no hidden layers**

This network gave a training accuracy of 10% when trained repeatedly on 3000 images demonstrating it can learn.

**1 hidden Convolution layer**

When this network trains, the accuracy appears to remain at 0. This may be because it requires a longer training time compared to the previous network.

In other news we discovered that our image labels were incorrect. When looking at two images of the same character, we noticed the labels were different numbers. This explains the inability of the networks to train if the labels to the images are essentially random.

This issue does not affect the testing described above and should be simple to fix.

**Action points for the next week**

1. Continue working on the network with 1 convolutional layer.

2. Once the labels are correct, try training the simple network with no layers and see what test accuracy we can achieve.

3. Keep working on a ML implementation for our data >> is there a better method than one-hot vectors?