The 14th week updates

Bo Xiao

Works have been done this week:

1. The **deep neural net based classifier** has been developed to fulfil the classification purpose. It takes **5 mins** to run the simulations, The **structure** and the **parameters** shown in the figure below:

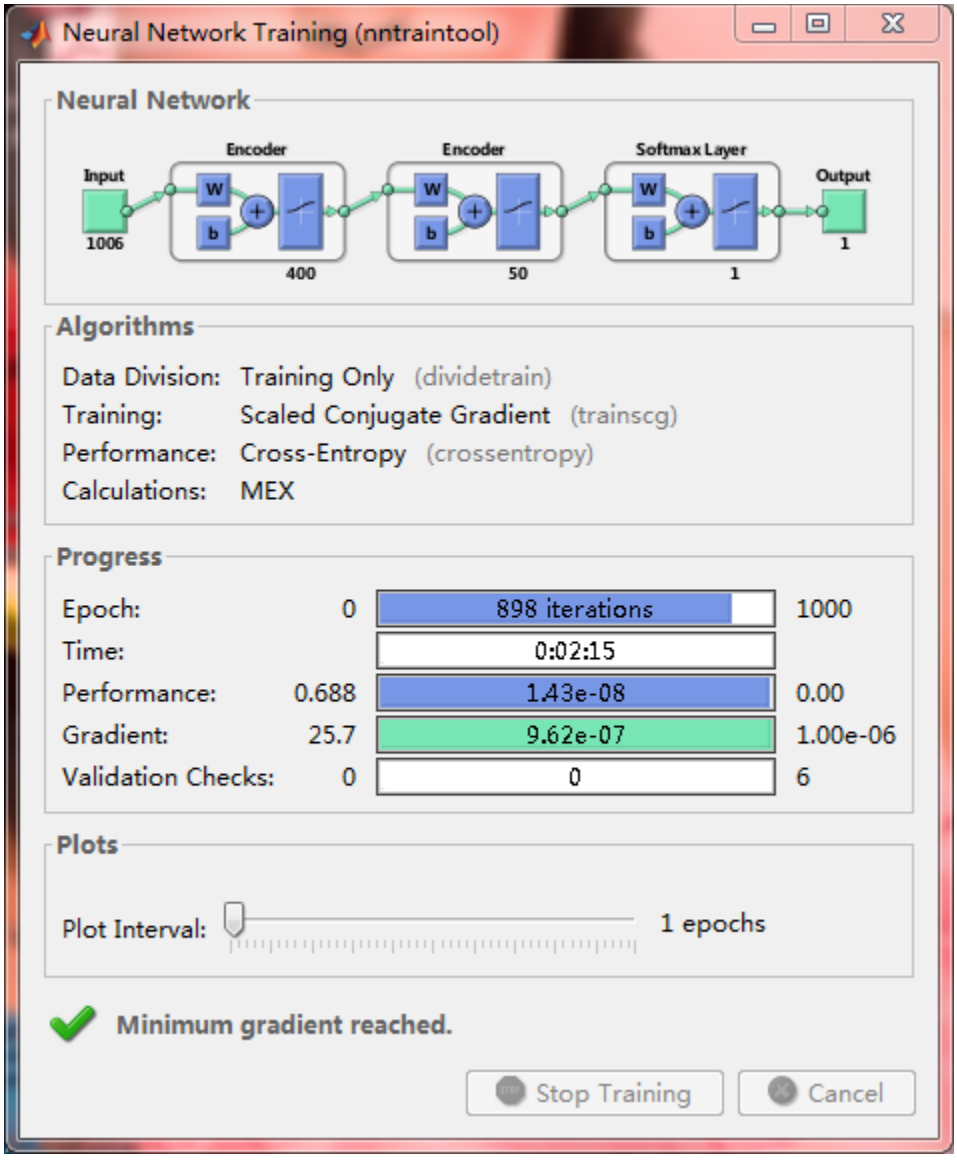

Fig: The structure of the deepnet

And the classification performance is shown in the below two figures:

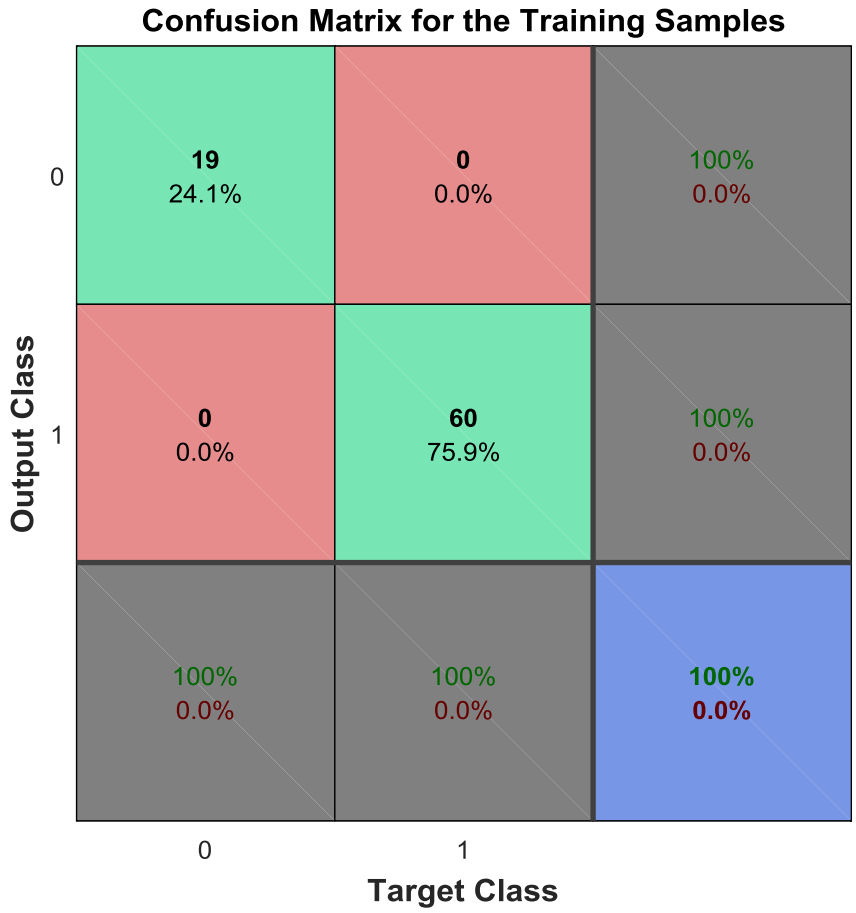

Fig. The classification performance for the training samples

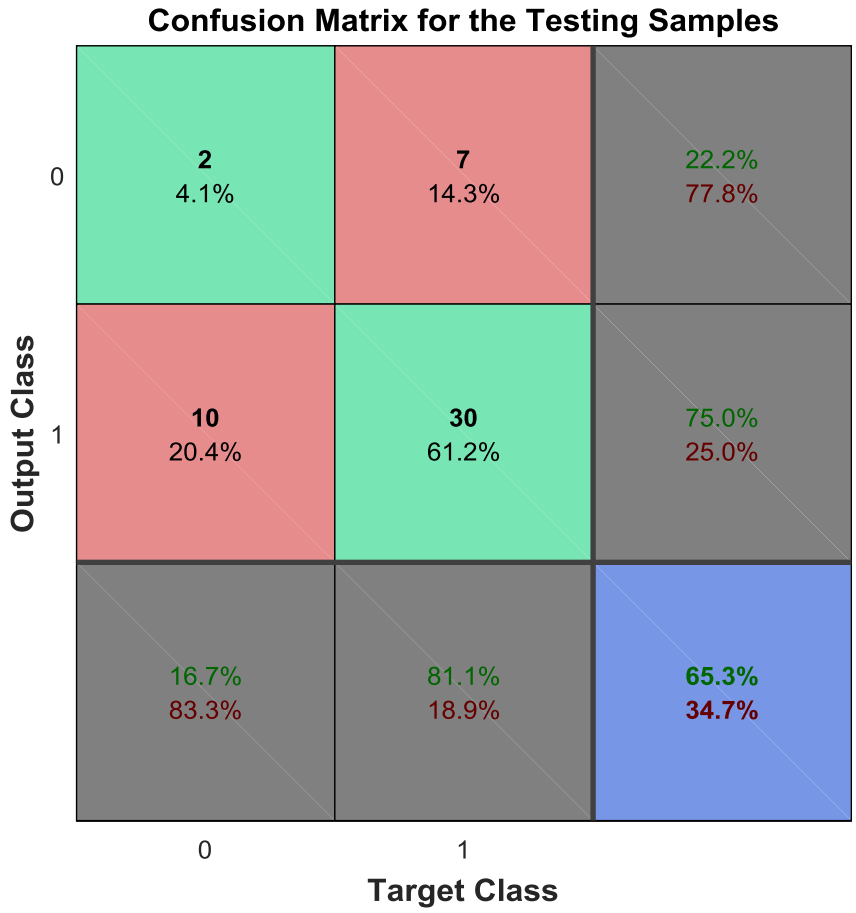

Fig. The classification performance for the testing samples

In the figures for the classification, it can be found that the **training performance** is pretty good, it's **100% accuracy** while the **testing performance** is **65.3%**. The classifier works for the testing job but the performance **is not good enough**, we aim at more that 90% accuracy for the testing. The testing performance can be improved through both the **algorithm** and the **experiment** ways.

2. The EEG works with Athif, the data has been extracted by Athif and Athif already made a good update on that.
3. Proofread the time-delay paper and reformat it.

Works in the coming week:

1. Try to improve the classification performance, more palpation experiments may be needed.
2. Discuss with Wenjun Xu and Jing Guo on the results and the future experiment.
3. reformat the time-varying delay paper.