## Assignment 4

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## Slp\_linear

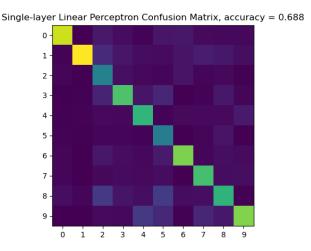


Figure 1 shows confusion matrix of Single-layer Linear Perceptron. We used 4 parameters: learning rate = 0.03, decay rate = 0.8, iterations = 2001, batch size = 32. The learning rate decays per 1000 iterations. The accuracy is 68.8%.

## S1p

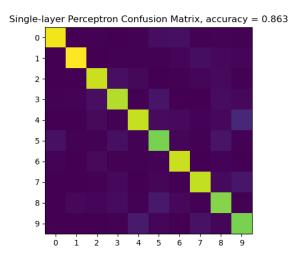
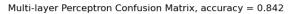


Figure 2 shows confusion matrix of Single-layer Perceptron We used 4 parameters: learning rate = 0.2, decay rate = 0.9, iterations = 2001, batch size = 32. The learning rate decays per 1000 iterations. The accuracy is 86.3%.

Mlp



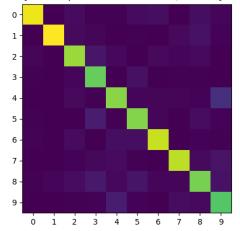


Figure 3 shows the confusion matrix of Multi-layer Perceptron We used 4 parameters: learning rate = 0.23, decay rate = 0.9, iterations = 2500, batch size = 32. The learning rate decays per 1000 iterations. The accuracy is 84.2%

## Cnn

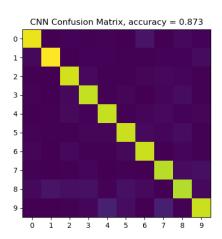


Figure 4 shows the confusion matrix of Convolutional Neural Network We used 4 parameters: learning rate = 0.28, decay rate = 0.9, iterations = 2200, batch size = 32. The learning rate decays per 1000 iterations. The accuracy is 87.3%