Assignment 4

Topics: Convolutional Neural Networks using MNIST Dataset

CSCI 4155

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Objective

In this assignment we had to implement Convolutional Neural Networks on the MNIST dataset. The goal for our model was to be able to classify handwritten digits into actual numbers.

Detailed Process

I implemented the CNN algorithm on the MNIST dataset following the hints given in the Assignment instructions. I have also added comments for my chosen parameters and steps. Upon observing the graph which shows model test accuracy we can see that the accuracy increases significantly after the first epoch and then flattens out at a plateau of 99 percent accuracy. Analyzing the loss graph we can see that the loss decreases sharply and linearly after the first epoch, by the time it reaches the 4th epoch the line flattens out to approximately 0.03 loss.