

Deep Learning - Homework 1

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1 Question 1

1.1 Question 1.1

1.2 Question 1.2

1.3 Question 1.3

1.4 Question 1.4

2 Question 2

2.1 Question 2.1

After running the code, the best configuration was for the learning rate of 0.01. The following plots were generated:

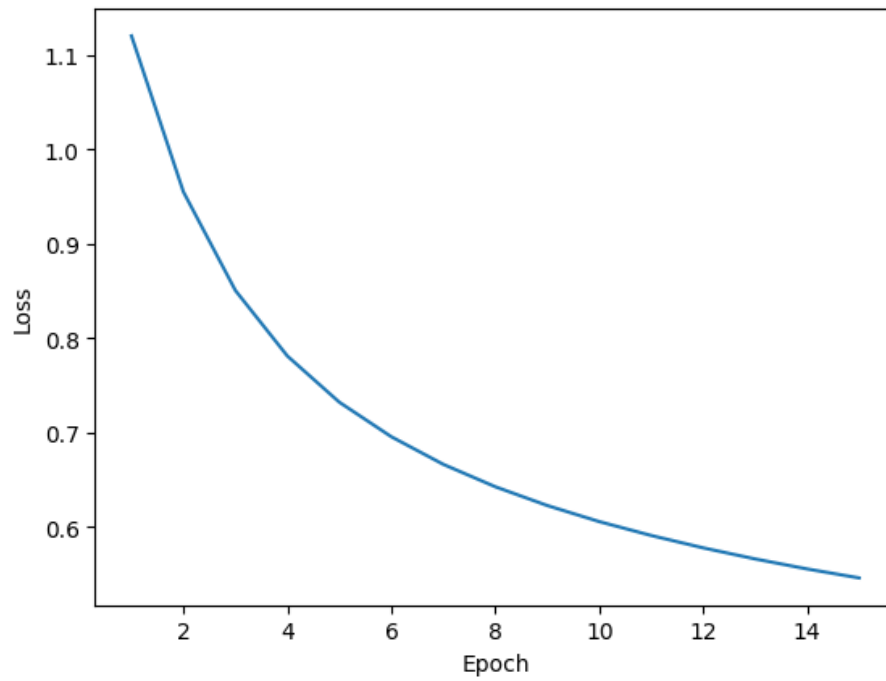


Figure 1: Training loss for $\eta = 0.01$

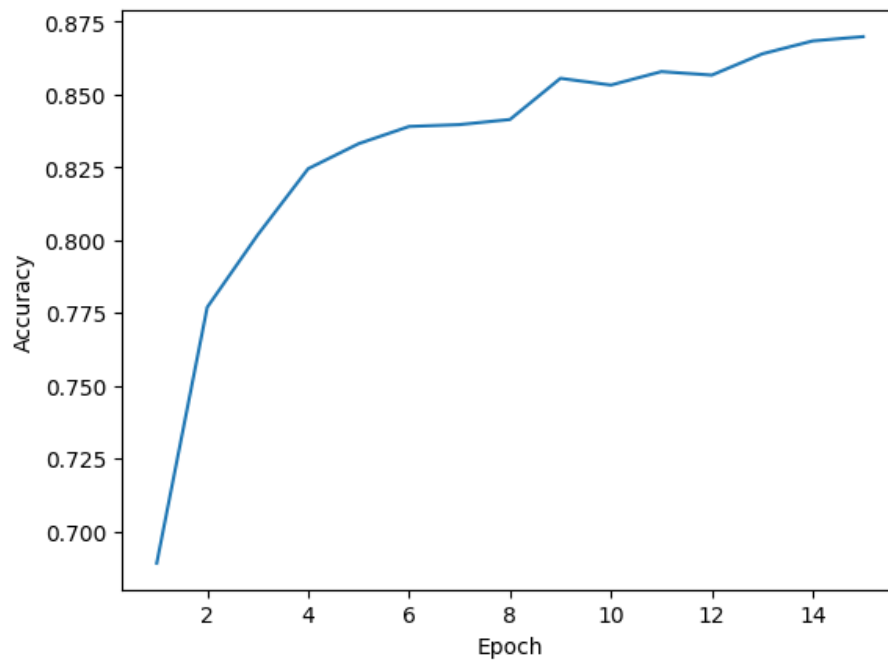


Figure 2: Validation accuracy for $\eta = 0.01$

The final test accuracy was 0.8280.

2.2 Question 2.2

The performance of this network was slightly worse than the previous one, having achieved a final test accuracy of 0.8147.

2.3 Question 2.3

3 Question 3

3.1 Question 3.1

3.2 Question 3.2

3.3 Question 3.3

3.4 Question 3.4

4 Credits

5 Sources