

Deep Learning Lab Report- Exercise 1

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Introduction:

Objective of this exercise was to implement a feed forward neural network using python for the MNIST dataset classification.

Implementation details:

To-do tasks were implemented as required which they were relatively easy. Whenever necessary comments were added to the code to clarify more.

Hyperparameter setting:

Most tricky part of this assignment was reaching a desired performance and setting the Hyperparameters in a way which fulfils this performance. I learned the importance of hyper parameter settings after this assignment. After much trial and error the best performance was observed for the following setting:

Batch-size : 32

Descent-type : SGD

Learning_rate : 0.038

Max-epochs : 60

	num_units	activation_function
Layer 1	100	Sigmoid
Layer 2	150	ReLU
Layer 3	100	Sigmoid

Achieved test-error : 3.07 %

