DEEP LEARNING PRACTICAL 3

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BTech Data Science 3rd year

Code :- https://github.com/visheshtechie/DL/blob/master/Lab3_Keras_Optimizer_J018.ipynb

Aim :-

To learn about different optimizers available in Keras.

Observations :-

The dataset used in this sheet is MNIST.

STOCHASTIC GRADIENT DESCENT

Training Accuracy : 0.985
Validation Accuracy : 0.1

RMS PROP

Training Accuracy : 0.982
Validation Accuracy : 0.999

Adagrad

Training Accuracy : 0.985
Validation Accuracy : 0.1

Adadelta

Training Accuracy : 0.984
Validation Accuracy : 0.1

Adam

Training Accuracy : 0.98
Validation Accuracy : 0.998

Adamax

Training Accuracy : 0.985
Validation Accuracy : 0.1

Nesterov Adam

Training Accuracy : 0.979
Validation Accuracy : 0.995

Conclusion :-

The different optimizers were tried on MNIST dataset.

The best optimizers out of these are Stochastic Gradient Descent , Adagrad, Adadelta, Adamax

because they all have validation accuracy of 0.9857.