README

Three of the multiple models trained are present in this folder. The output layer contains 10 neurons, with the softmax activation function. The loss function used is cross-entropy.

mnist_classification1.ipynb

- **Number of hidden layers** :1
- **Number of neurons in the first hidden layer**: 784 (number of input pixels)
- **Activation function**: ReLu
- **Optimizer**: adagrad
- **Batch size**: 50
- **Number of epochs**: 10
- **Training accuracy**: 99.51%
- **Training accuracy**: 98.30%

mnist_classification2.ipynb

- **Number of hidden layers** :2
- **Number of neurons in the first hidden layer**: 784 (number of input pixels)
- **Activation function**: ReLu
- **Number of neurons in the second hidden layer**: 250 (number of input pixels)
- **Activation function**: ReLu
- **Optimizer**: adagrad
- **Batch size**: 100
- **Number of epochs**: 10
- **Training accuracy**: 99.95%
- **Training accuracy**: 98.40%

mnist_classification3.ipynb

- **Number of hidden layers** :1
- **Number of neurons in the first hidden layer**: 784 (number of input pixels)
- **Activation function**: ReLu

- **Number of neurons in the second hidden layer**: 250 (number of input pixels)
- **Activation function**: tanh
- **Optimizer**: adagrad
- **Batch size**: 100
- **Number of epochs**: 10
- **Training accuracy**: 99.95%
- **Training accuracy**: 98.45%