**\*UPDATED**

**\*CNN implementation on digit recognition in MNIST dataset**

Git repository -<https://github.com/rampofin/mrm.git>

1.**Libraries** used:

-torch

-torchvision

-matplotlib.pyplot

2.**Data loading**

train\_data, test\_data, val\_data = loads MNIST data set

train\_dl, val\_dl, text\_dl= creates data loaders

3.**DataLoader dictionary**

Has dictionary named data loaders for training, testing &

validation with batch size of 100.

4.**CNN class**

This defines the architecture of CNN

Conv1,conv2- convolutional layers

Conv2\_drop-dropout layer(prevents overfitting)

Fc1,fc2-fully connected layers

Forward function - defines forward pass

5.**model** - creates instance of CNN model

6.**optimizer** - Adam

7.**loss\_fn**- defines CrossEntropyLoss

8.**train(epoch)-**Handles the training process for an epoch

9.**test()-**Evaluates model performance on test dataset

10.i**nference()**- performs prediction