**\*\*Approach\*\***

I started with he MNIST Image dataset and focused most of my time on these image sets. I found that the KMNIST was one of the more challenging and limited myself to 5 epochs for faster training. I started messing with some of the batch sizes leading to activations functions and the number of nodes. If I had more time, I would have increased the number of epochs.

I then created a regression problem bases on some data that I found on Kaggle. It is used to predict the cost of your health insurance. I built a simple linear model and produced a couple of graphs along with it.

**\*\*Challenges\*\***

The challenge was building the model in pytorch and learning how Google colab worked so I could run it off their GPU. All of the metrics were tricky also.

**\*\*Results\*\***

The exact results for the classification of the KMNIST data set are in the provided excel sheet. I reached around 93% with the best hyperparameters. This would be higher if I increased the number of epochs.

For the linear regression problem with only 100 epochs the line fits quite well.

**\*\*Above and Beyond\*\***

I applied and dived deep into the mertics of these models. Taking Seaborn to create a heat-map of the confusion matrix. Going back to the principals of accuracy, recall and precision was a great refresher.

**\*\*Assessment\*\***

I feel that i put in the effort of a 4. I did a lot more tweaking that the excel sheet shows. There was also a lot of studying of best mertics that happened around this project.