After training the model I got the following results:

test loss: 0.4501668806899434

test error: 0.0484

Hyperparameter tuning that I carried out to tune the model:

I Initially started with a model with only one hidden layer to test out if the accuracy could still be achieved but that did not work out. Then I reverted back to the starting model with two hidden layers. I slowly increased the epochs as I was getting increasing accuracy with increase in epochs. I managed to get good test results (<5% test error) for 100 epochs and hence I did not tweak other parameters such as learning rate or batch size to further try and tune the model.