

Some tips about how to build the first CNN network.

If you cannot get the code from the mail, you can both search it in the internet I think there are many sample codes or just download from my github:

[https://github.com/NymeriaWang/DeepLearning\\_SCA\\_ASCAD/blob/master/MNIST\\_Classifier\\_CNN\\_Example/CNNClassifier\\_MNIST.py](https://github.com/NymeriaWang/DeepLearning_SCA_ASCAD/blob/master/MNIST_Classifier_CNN_Example/CNNClassifier_MNIST.py)

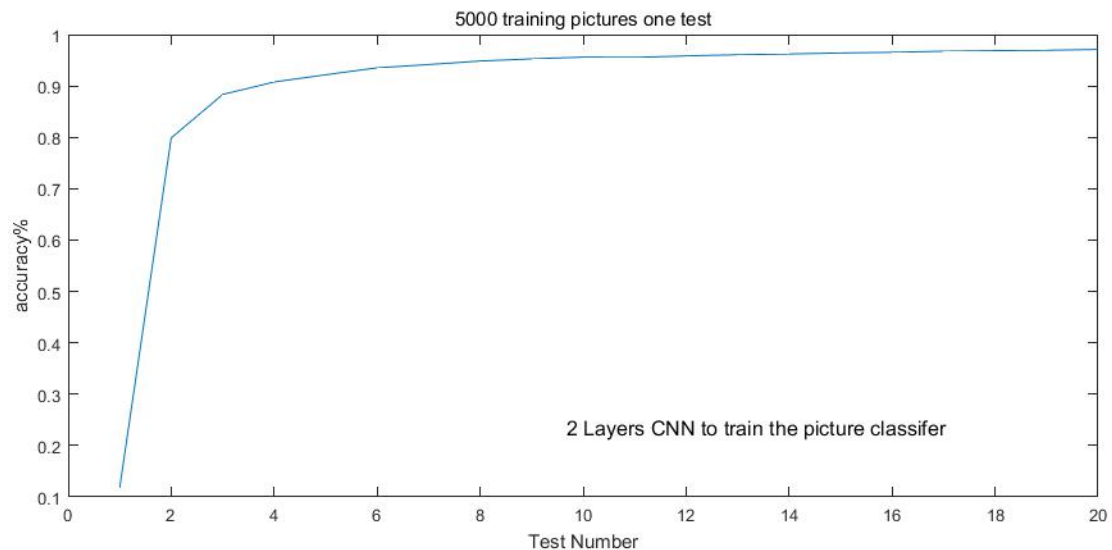
Why we build this task is because in the 'ASCAD Tech Report' it mentioned that 'following the path of the MNIST database'

In this task, we built a simple 2 layers CNN to distinguish the hand-writing number pictures in grayscale.

We divided the MNIST image dataset into two parts randomly, training and testing. As you can see in the following code:

```
for i in range(1000):
    batch_xs, batch_ys = mnist.train.next_batch(100) #get the 100 data from where you download, mini_batch
    sess.run(train_step, feed_dict={xs: batch_xs, ys: batch_ys, keep_prob: 0.5})
    if i % 50 == 0:
        print(compute_accuracy(mnist.test.images, mnist.test.labels))
```

We tested the accuracy after each 49 training sessions, with each session has 100 images to be trained. So there will be 20 tests, and we will get 20 accuracies.



I Think you don't need to download the database by yourself, the code did it, but if you cannot find the database after running the code, maybe try to download the database by yourself.