MNIST Digit Classification Machine Learning Project

Submitted by

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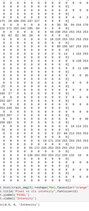
```
import tensorflow as tf
from matplotlib import pyplot as plt
%matplotlib inline
```

```
from keras.datasets import mnist
(train_images, train_labels), (test_images, test_labels) = mnist.load_data()
```

```
Downloading data from https://storage.googleapis.com/tensorflow/tf-keras-datasets/mnist.npz
11490434/11490434 [==============================] - 0s 0us/step
```

```
for i in range(9):
  plt.subplot(3,3, i+1)
  plt.imshow(train_images[i], cmap='gray', )
  plt.title("Digit: " + str(train_labels[i]))
  plt.xticks([])
  plt.yticks([])
```




```
print("Training images shape: ", train_images.shape)
print("Testing images shape: ", test_images.shape)
```

```
Training images shape:  (60000, 28, 28)
Testing images shape:  (10000, 28, 28)
```

```
print("One image train label: ")
print(train_images[0])
```

```
One image train label:
[[  0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0]
 [
```