COSC4337_mnist_extraction

September 17, 2021

[1]:
```
import tensorflow as tf
```

[2]:
```
from tensorflow.examples.tutorials.mnist import input_data
```

[6]:
```
mnist=input_data.read_data_sets("MNIST_data/",one_hot=True)
```

```
Extracting MNIST_data/train-images-idx3-ubyte.gz
Extracting MNIST_data/train-labels-idx1-ubyte.gz
Extracting MNIST_data/t10k-images-idx3-ubyte.gz
Extracting MNIST_data/t10k-labels-idx1-ubyte.gz
```

[7]:
```
type(mnist)
```

[7]:
```
tensorflow.contrib.learn.python.learn.datasets.base.Datasets
```

[8]:
```
mnist.train.images
```

[8]:
```
array([[0., 0., 0., …, 0., 0., 0.],
       [0., 0., 0., …, 0., 0., 0.],
       [0., 0., 0., …, 0., 0., 0.],
       …,
       [0., 0., 0., …, 0., 0., 0.],
       [0., 0., 0., …, 0., 0., 0.],
       [0., 0., 0., …, 0., 0., 0.]], dtype=float32)
```

[9]:
```
mnist.train.num_examples
```

[9]:
```
55000
```

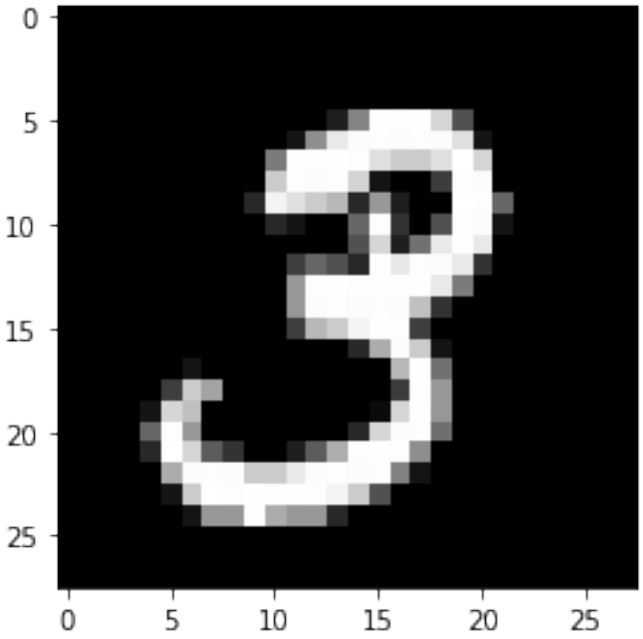
[10]:
```
import matplotlib.pyplot as plt
```

[11]:
```
%matplotlib inline
```

[14]:
```
si=mnist.train.images[1].reshape(28,28)
```

[16]:
```
plt.imshow(si,cmap='gist_gray')
```

[16]:
```
<matplotlib.image.AxesImage at 0x1f5480c6748>
```


0
5
10
15
20
25
0
5
10
15
20
25

[ ]: