

Pattern Recognition in Python

Below is the code for recognizing digits in Python. We are using MNIST dataset to train and test our SVM classifier.

```
import matplotlib.pyplot as plt
from sklearn import datasets
from sklearn import svm

digits = datasets.load_digits()

print(digits.data)

print(digits.target)

print(digits.images[0])

clf = svm.SVC(gamma=0.001, C=100)

print(len(digits.data))

x,y = digits.data[:-1],digits.target[:-1]

clf.fit(x,y)

print("Prediction:", clf.predict(digits.data[-1]))
plt.imshow(digits.images[-1], cmap=plt.cm.gray_r, interpolation="nearest")
plt.show()
```