

Day 15

16th December

Day 15 Script

```
import joblib,cv2
import numpy as np
model = joblib.load("model/svm_6label_rbf")
import pyscreenshot as ImageGrab
import time
```

```
images_folder = "temp/"
fout = open("testing_x", "w+")
for i in range(0,100):
```

Image pre-processing

```
img = ImageGrab.grab(bbox=(80, 80, 208, 208)) # X1,Y1,X2,Y2
img.save(images_folder+"test_orig.png")
im = cv2.imread(images_folder+"test_orig.png")
im_gray = cv2.cvtColor(im, cv2.COLOR_BGR2GRAY)
im_gray = cv2.GaussianBlur(im_gray, (15, 15), 0)
```

Threshold the image

```
ret, im_th = cv2.threshold(im_gray, 100, 255, cv2.THRESH_BINARY)
```

```
roi = cv2.resize(im_th, (28, 28), interpolation=cv2.INTER_AREA)
```

```
cv2.imwrite(images_folder+"segmented.png", roi)
```

```
rows,cols = roi.shape
```

```
X=[]
```

Add pixel one-by-one into data Array.

```
for i in range(rows):
    for j in range(cols):
        k = roi[i,j]
        if k>100:
            k=1
        else:
            k=0
        X.append(k)
```

```
#scaling = MinMaxScaler(feature_range=(-1, 1)).fit([X])
```

```
#X = scaling.transform([X])
```

```
fout.write(str(X))
```

```
predictions = model.predict([X])
```

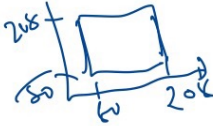
```
print "Prediction: ", predictions[0]
```

```
cv2.putText(im, "Prediction is: "+str(predictions[0]), (20, 20), 0, 0.8,
            (0, 255, 0), 2, cv2.LINE_AA)
```

```
#cv2.startWindowThread()
```

Show Prediction

```
cv2.namedWindow("Result")
cv2.imshow("Result", im)
cv2.waitKey(10000)
#time.sleep(4)
```



grabs this dimension

save this in images-folder and read the image
convert from BGR to gray

Why are we doing all this

2 outputs

img size (rows, cols)

(convert the pixels to black & white)

prediction y'