

newsma - [C:\Users\Jared\PycharmProjects\newsma] - ...image\_recognition.py - PyCharm Community Edition 2016.2.3

File Edit View Navigate Code Refactor Run Tools VCS Window Help

Project image\_recognition.py x photo\_1.py x photo\_3.py x photo\_2\_try2.py x extract\_features.py x image\_recognition.py x image\_conversion.py x best\_match\_number.py x photo\_5.py x photo\_4\_try2.py x

Search: print 6 matches

```
1 #horse images from
2 #https://unsplash.com/search/photos/horses
3
4 #dog images from
5 #https://www.kaggle.com/c/dogs-vs-cats/data
6
7 import cv2
8 import numpy as np
9 import os
10 from sklearn import svm
11 from sklearn.neighbors import KNeighborsClassifier
12 def dog_or_horse(folder_mod,k):
13     train_targets = []
14     test_targets = []
15     if folder_mod=='':
16         img_file = 'dogs' + folder_mod + '/dog.0' + '.jpg'
17     else:
18         img_file = 'dogs' + folder_mod + '/dog.0' + '.png'
19     img_in = cv2.imread(img_file, 1)
20     img_resized = cv2.resize(img_in, (255, 255))
21     img_mat = np.asarray(img_resized)
22     img_data_train = img_mat.flatten()
23     img_data_test = img_mat.flatten()
24     train_targets.append('dog')
25     test_targets.append('dog')
26     i = 0
27     for filename in os.listdir('dogs'):
28         img_in = cv2.imread('dogs/' + filename, 1)
29         img_resized = cv2.resize(img_in, (255,255))
30         img_mat = np.asarray(img_resized)
```

Terminal

```
+ C:\Users\Jared\PycharmProjects\newsma>C:\Python27\python.exe image_recognition.py
X Accuracy for k=1: 0.756756756757
Dog accuracy for k=1: 0.947368421053
Horse accuracy for k=1: 0.555555555556
Accuracy for k=5: 0.783783783784
Dog accuracy for k=5: 0.947368421053
Horse accuracy for k=5: 0.611111111111
Accuracy for k=10: 0.702702702703
Dog accuracy for k=10: 1.0
Horse accuracy for k=10: 0.388888888889
Accuracy for k=20: 0.648648648649
Dog accuracy for k=20: 0.894736842105
Horse accuracy for k=20: 0.388888888889
C:\Users\Jared\PycharmProjects\newsma>
```

Platform and Plugin Updates: PyCharm Community Edition is ready to update. (yesterday 8:59 PM)

90:14 CRLF+ UTF-8+