# **Handwritten Names Recognition**

<https://github.com/ikergarcia1996/Handwritten-Names-Recognition>

Tensorflow docker

<https://hub.docker.com/r/tensorflow/tensorflow/>

Opencv with tensorflow

<https://github.com/floydhub/dl-docker/blob/master/Dockerfile.gpu>

<https://github.com/dymat/docker-opencv/blob/master/Dockerfile>

<https://github.com/nuveo/docker-opencv/tree/master/debian/python3/2>

sudo docker run -d --name hnr --mount type=volume,source=my-vol-htc,target=/home/bl/hnr -it hnrimage

Sudo docker exec -it hnr bash

sudo docker cp /home/devops/HNR/ hnr:/home/bl/hnr/

sudo docker cp /home/devops/HNR/ hnrtest:/home/bl/hnrtest/

sudo docker run -d --rm --runtime=nvidia --name hnr -v /home/sarala/ocr/:/home/bl -it hnrtest

Build the image

Sudo docker build -t hnrimage .

nano /home/devops/anaconda3/envs/hnr-env/lib/python3.6/site-packages/skimage/feature/\_hog.py

block\_norm=None to 'L2-Hys'

def hog(image, orientations=9, pixels\_per\_cell=(8, 8), cells\_per\_block=(3, 3),

block\_norm='L2-Hys', visualize=False, visualise=None, transform\_sqrt=Fa$

feature\_vector=True, multichannel=None):

scikit-image==0.14.0=py27hf484d3e\_1

Pip3 install scikit-image==0.13.1

apt install python3-pip

pip3 install matplotlib

pip3 install plotly

pip3 install scipy

pip3 install sklearn

pip3 install scikit-learn

pip3 install pandas

pip3 install scikit-image

pip3 install IPython

python3 -c "import skimage; print skimage.\_\_version\_\_"

pip3 install scikit-image==0.13.1

pip install --upgrade tensorflow

pip3 install mlxtend

Traceback (most recent call last):

File "test.py", line 479, in <module>

rbm\_mlp\_predict = predict\_full\_name(test\_image, rbm\_mlp\_classifier)

File "test.py", line 391, in predict\_full\_name

characters = get\_characters\_img\_only(name)

File "test.py", line 267, in get\_characters\_img\_only

labeled, nr\_objects = get\_labels(image)

File "test.py", line 180, in get\_labels

img = crop.copy() # gray-scale image

AttributeError: 'str' object has no attribute 'copy'

Commit changes to an image

devops@devops-Aspire-F5-573G:~$ sudo docker container ls

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

eeefe3b66a1c hnrimage "/bin/bash" 4 hours ago Up 4 hours

sudo docker commit eeefe3b66a1c hnrimage

Handwritten Digit data set

<http://yann.lecun.com/exdb/mnist/>

from mlxtend.data import loadlocal\_mnist

X\_train, X\_test = loadlocal\_mnist(

images\_path='./MNIST/train-images-idx3-ubyte',

labels\_path='./MNIST/train-labels-idx1-ubyte')

#(X\_train, Y\_train), (X\_test, Y\_test) = tf.keras.datasets.mnist.load\_data()

Y\_train, Y\_test = loadlocal\_mnist(

images\_path='./MNIST/t10k-images-idx3-ubyte',

labels\_path='./MNIST/t10k-labels-idx1-ubyte')

<https://www.nist.gov/itl/iad/image-group/emnist-dataset>

<http://yann.lecun.com/exdb/mnist/>

<http://rasbt.github.io/mlxtend/installation/>

<http://rasbt.github.io/mlxtend/user_guide/data/loadlocal_mnist/>

Save image to a tar file

sudo docker save -o ~/hnr.tar hnrtest

nvidia -smi

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Processing train image 672 : [ ] 1.12%Segmentation fault (core dumped)

ValueError: shapes (8,784) and (64,300) not aligned: 784 (dim 1) != 64 (dim 0)

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Trained on sklearn data set

<https://scikit-learn.org/stable/datasets/index.html#digits-dataset>