**as** np

**from** tensorflow.keras.preprocessing.image **import** ImageDataGenerator

**from** tensorflow.keras.models **import** load\_model

**from** tensorflow.keras.preprocessing **import** image

model **=** load\_model("Gesture.h5")

path **=** r'C:\Users\mrith\Desktop\dataset\test\0\0.jpg'

train\_datagen **=** ImageDataGenerator(rescale**=**1.**/**255,

shear\_range**=**0.2,

zoom\_range**=**0.2,

horizontal\_flip**=True**)

test\_datagen**=**ImageDataGenerator(rescale**=**1.**/**255)

x\_train **=** train\_datagen**.**flow\_from\_directory(r'C:\Users\mrith\Desktop\dataset\train',

target\_size**=**(64, 64),

batch\_size**=**3,

color\_mode**=**'grayscale',

class\_mode**=**'categorical')

x\_test **=** test\_datagen**.**flow\_from\_directory(r'C:\Users\mrith\Desktop\dataset\test',

target\_size**=**(64, 64),

batch\_size**=**3,

color\_mode**=**'grayscale',

class\_mode**=**'categorical')

Found 594 images belonging to 6 classes.

Found 30 images belonging to 6 classes.

InÂ [89]:

**%pylab** inline

**import** matplotlib.pyplot **as** plt

**import** matplotlib.image **as** mpimg

imgs **=** mpimg**.**imread(path)

imgplot **=** plt**.**imshow(imgs)

plt**.**show()

Populating the interactive namespace from numpy and matplotlib



*#loading of the image*

img **=** image**.**load\_img(path,

color\_mode**=**'grayscale',

target\_size**=** (64,64))

x **=** image**.**img\_to\_array(img)*#image to array*

x**.**shape

Out[90]:

(64, 64, 1)

InÂ [91]:

type(x)

Out[91]:

numpy.ndarray

InÂ [92]:

*#changing the shape*

x **=** np**.**expand\_dims(x,axis **=** 0)

InÂ [93]:

x**.**shape

Out[93]:

(1, 64, 64, 1)

InÂ [95]:

pred **=** model**.**predict(x)

pred

1/1 [==============================] - 0s 84ms/step

Out[95]:

array([[1., 0., 0., 0., 0., 0.]], dtype=float32)

InÂ [96]:

x\_test**.**class\_indices

Out[96]:

{'0': 0, '1': 1, '2': 2, '3': 3, '4': 4, '5': 5}

InÂ [97]:

index**=**['0','1','2','3','4','5']

InÂ [98]:

index[np**.**argmax(pred)]

Out[98]:

'0'