Fruits_Prediction

October 6, 2020

0.1 Prediction of fruits using model trained

[167]:
```
from tensorflow.keras.models import load_model
import numpy as np
import random
```

[2]:
```
model = load_model('Fruits_Classifier_v1.h5')
```

[128]:
```
import os
my_data_dir = 'D:\\fruits-360'
train_path = my_data_dir+'\\Train\\'
test_path = my_data_dir+'\\Test\\'
multi = my_data_dir+'\\test-multiple_fruits\\'
unseen = my_data_dir+'\\unseen\\'
classes = os.listdir(train_path)
```

[9]:
```
from tensorflow.keras.preprocessing import image
```

[10]:
```
img_shape=(100,100,3)
```

[214]:
```
index = random.randint(0,len(classes))
# index = 77
di = os.listdir(test_path+classes[index])
i = random.randint(0,len(di))
pic = image.load_img(test_path+classes[index]+'\\'+di[i],target_size=img_shape)
```

[215]:
```
print(classes[index])
pic
```

```
Lemon Meyer
```

[215]:

[216]:
```
pic = image.img_to_array(pic)
print(pic.shape)
pic = np.expand_dims(pic,axis=0)
print(pic.shape)
pred = model.predict(pic)
print(pred)
print("\nPredicted: "+str(classes[pred.argmax()]))
```

```
(100, 100, 3)
(1, 100, 100, 3)
[[0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
  0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
  0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 1. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
  0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
  0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
  0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]]

Predicted: Lemon Meyer
```

[226]:
```
di1 = os.listdir(unseen)
j = random.randint(0,len(di1))
pic = image.load_img(unseen+di1[j],target_size=img_shape)
pic
```

[226]:

[227]:
```
pic = image.img_to_array(pic)
print(pic.shape)
pic = np.expand_dims(pic,axis=0)
print(pic.shape)
pred = model.predict(pic)
print(pred)
print("\nPredicted: "+str(classes[pred.argmax()]))
```

```
(100, 100, 3)
(1, 100, 100, 3)
[[0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 1. 0. 0. 0. 0. 0. 0.
```

```
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]]
```

```
Predicted: Banana Lady Finger
```

[ ]:

[ ]: