Assignment6b

July 20, 2021

[5]:
```
from tensorflow.keras.applications.resnet50 import ResNet50
from tensorflow.keras.preprocessing import image
from tensorflow.keras.applications.resnet50 import preprocess_input,␣
 ↪decode_predictions
import numpy as np

model = ResNet50(weights='imagenet')

img_path = '/home/jovyan/dsc650/data/raw/Images/elephant.jpeg'
img = image.load_img(img_path, target_size=(224, 224))
x = image.img_to_array(img)
x = np.expand_dims(x, axis=0)
x = preprocess_input(x)

preds = model.predict(x)
# decode the results into a list of tuples (class, description, probability)
# (one such list for each sample in the batch)
print('Predicted:', decode_predictions(preds, top=3)[0])
# Predicted: [(u'n02504013', u'Indian_elephant', 0.82658225), (u'n01871265',␣
 ↪u'tusker', 0.1122357), (u'n02504458', u'African_elephant', 0.061040461)]
```

```
Downloading data from https://storage.googleapis.com/download.tensorflow.org/dat
a/imagenet_class_index.json
40960/35363 [==================================] - 0s 1us/step
Predicted: [('n02504458', 'African_elephant', 0.82441485), ('n01871265',
'tusker', 0.1302477), ('n02504013', 'Indian_elephant', 0.045045294)]
```

[ ]:
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