

```
In [1]: import DeepLearning as DL
from keras.models import load_model
from keras.applications import mobilenet

model_file = "./cats_and_dogs_trained.h5"

print("[INFO] loading {}".format(model_file))
model = load_model(model_file,
    # Needed to import a model containing
    # a saved MobileNet convolutional base.
    custom_objects={'relu6': mobilenet.relu6,
        'DepthwiseConv2D': mobilenet.DepthwiseConv2D})
image_size = model.input_shape[1:3]
```

```
/usr/local/lib/python2.7/dist-packages/h5py/__init__.py:36: FutureWarning:
Conversion of the second argument of issubdtype from `float` to `np.floati
ng` is deprecated. In future, it will be treated as `np.float64 == np.dtyp
e(float).type`.
```

```
from ._conv import register_converters as _register_converters
Using TensorFlow backend.
```

```
[INFO] loading ./cats_and_dogs_trained.h5...
```

```
In [2]: def classify(pred):
    if pred < 40.0: return 'Cat'
    if pred < 60.0: return '?'
    return 'Dog'
```

```

In [4]: image_file = "./Pet_Dataset/production/Pet_00001.jpg"

image = DL.load_image(image_file, image_size)

print("[INFO] classifying image {} \n with '{}'.format(image_file,
                                                    model_file))

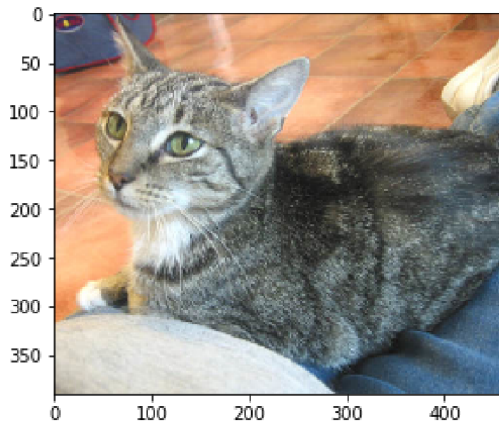
pred = 100.0 * model.predict(image)[0][0]

print '-' * 42
print "{0:>13} | {1:>13} | {2:<12}".format("Score 'Cat'",
                                          "Score 'Dog'",
                                          "Prediction")

print '-' * 42
print "{0:>12.2f}% | {1:>12.2f}% | {2:<12}".format(100.0-pred,
                                                  pred,
                                                  classify(pred))

print '-' * 42

```



```

[INFO] classifying image ./Pet_Dataset/production/Pet_00001.jpg
with './cats_and_dogs_trained.h5'
-----
Score 'Cat' | Score 'Dog' | Prediction
-----
      99.99% |       0.01% | Cat
-----

```