

## Cat and Dog Classifier

At this location:

<https://www.dropbox.com/sh/czlqcq2dqijoykz/AAAUHaEKI-dNWxgnfQI30BJDa?dl=0>

You will find the following:

- a copy of these instructions
- 10 images of cats labeled "cat\_1.png" through "cat\_10.png"
- 10 images of dogs labeled "dog\_1.png" through "dog\_10.png"
- 20 images of either a cat or a dog labeled "unknown\_1.png" through "unknown\_20.png"

Using TensorFlow write a Python program that trains on the 20 images labeled either cat or dog, then based on that training data write a test script that attempts to classify the 20 "unknown" images as either "cat" or "dog".

The command line output of your test script should look similar to the following:

```
> unknown_1.png - cat
> unknown_2.png - cat
> unknown_3.png - dog
> unknown_4.png - cat
(lines omitted)
> unknown_19.png - dog
> unknown_20.png - cat
```

Due to the relatively small training image set size, the results even with a well designed program may not be all that great. This is ok, your program does not have to get near 100% accuracy. Focus on having a well designed program that would work well with a large training sample size and do as well as you can.

Your GitHub repo should include the following:

- the necessary files to performing your training process
- the necessary files to perform your test process
- try to make running your program, both training and test phases, as obvious as possible; **for any steps to run your program that are not obvious, include applicable documentation in a readme.md**
- a screenshot of TensorBoard showing your neural network graph