

Animal Gate Code Documentation

Dependencies for Machine Learning Module:

Ensure you have the following Python libraries installed:

- NumPy
- Tensorflow
- PIL
- OS
- Subprocess
- Flask

You can install these libraries using pip:

Pip install [library_name]

Setup:

1) **Connect Raspberry Pi to System:**

Plug the Raspberry Pi into a power source and connect it to a system.

2) **Clone Repository:**

Clone this repository to your Raspberry Pi by running the following command in the terminal:

```
git clone https://github.com/mahsageshvadi/AnimalGates.git
```

3) **Navigate to ClassifyCat.py Directory:**

Change to the directory containing the ClassifyCat.py script.

4) **Run Classification Script:**

Execute the classification script using Python 3:

```
python3 ClassifyCat.py
```

5) **Open Browser:**

After successful compilation, open a web browser and navigate to the following address:

[http://\[ip_address\]:\[port_number\]/method_name](http://[ip_address]:[port_number]/method_name)

In the provided example, replace [ip_address] with 172.20.10.2, [port_number] with 5000, and [method_name] with classify.

6) **Connect Camera:**

Connect the camera to the Raspberry Pi.

7) **Position the Camera:**

Place the camera in a position where it has a clear view of a cat.

8) **Detection and Result:**

The system will automatically detect the cat and print the detected cat breed.