

Manual for the EQBot

By Wenhuan Kuang (kuangwh@ustc.edu.cn)

General notes

Part 1 shows the installation of the EQBot

Part 2 shows the usage for the demo

The texts in grey are optional.

The symbol “\$:” denotes it is a Linux command

Part 1 Installation of the EQBot

1, Download Anaconda

Download the Linux version from the official website: <https://www.anaconda.com>

2, Install Anaconda

\$: bash xxx.sh

Set the environment initialization (if choose no during Anaconda installation)

\$: echo 'export PATH="/anaconda3/bin:\$PATH"' >> ~/.bashrc

\$: source ~/.bashrc

3, Create virtual environment for Reinforcement Learning (RL)

\$: conda create -n rl python=3.6.5

Remember to activate and/or deactivate the virtual environment whenever use it

\$: conda activate rl

\$: conda deactivate

4, Install Tensorflow and Keras

\$: conda activate rl

\$: conda install tensorflow==1.9.0

\$: conda install keras==2.1.6

5, Install supporting software

\$: conda install pandas

\$: conda install tqdm

\$: conda install opencv

6, Install GYM (We have used mirror files. There are other ways to install)

\$: pip install gym -i <https://pypi.mirrors.ustc.edu.cn/simple>

7, Create the earthquake location environment in GYM

Find the installation path of GYM using the following command

\$: pip show gym

For example, my GYM path is /xxx/anaconda3/envs/rl/lib/python3.6/site-packages

(1), Put the downloaded file “myenv.py” into the following folder

“/xxx/anaconda3/envs/rl/lib/python3.6/site-packages/gym/envs/classic_control”

(2), Go into the following folder,
“/xxx/anaconda3/envs/rl/lib/python3.6/site-packages/gym/envs”,
add the following lines in the file “__init__.py”,

```
register(  
    id="Location-v0",  
    entry_point="gym.envs.classic_control.myenv:Location",  
)
```

(3), Go into the following folder,
“/xxx/anaconda3/envs/rl/lib/python3.6/site-packages/gym/envs/classic_control”,
add the following line in the file “__init__.py”

```
from gym.envs.classic_control.myenv import Location
```

Now, you have completed the installation of the EQBot.

Part 2 Usage for the demo

- 1, Unzip the downloaded file “Demo.zip”
\$: unzip Demo.zip
- 2, Go into the folder of EQBot
\$: cd Deep-RL-Keras-master-Demo
- 3, Run the demo
\$: python load_and_run_plot.py

Now, you have successfully run the demo and you should see the movie.