

```
Last login: Sun Apr 12 11:17:28 on ttys000
Run-Mac:~ mac$ cd ~/.ssh
Run-Mac:~.ssh mac$ ssh -i "Runzhe.pem" ubuntu@ec2-3-80-160-96.compute-1.amazonaws.com
ssh: connect to host ec2-3-80-160-96.compute-1.amazonaws.com port 22: Connection refused
Run-Mac:~.ssh mac$ ssh -i "Runzhe.pem" ubuntu@ec2-3-80-160-96.compute-1.amazonaws.com
Warning: Permanently added the ED25519 host key for IP address '3.80.160.96' to the list of known hosts.
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-1060-aws x86_64)
```

```
* Documentation: https://help.ubuntu.com
* Management:   https://landscape.canonical.com
* Support:       https://ubuntu.com/advantage
```

System information as of Sun Apr 12 16:03:32 UTC 2020

```
System load: 0.72          Processes:            226
Usage of /:  28.0% of 30.96GB Users logged in:      0
Memory usage: 1%          IP address for ens5: 172.31.0.69
Swap usage:  0%
```

```
* Kubernetes 1.18 GA is now available! See https://microk8s.io for docs or
install it with:
```

```
sudo snap install microk8s --channel=1.18 --classic
```

```
* Multipass 1.1 adds proxy support for developers behind enterprise
firewalls. Rapid prototyping for cloud operations just got easier.
```

```
https://multipass.run/
```

```
* Canonical Livepatch is available for installation.
- Reduce system reboots and improve kernel security. Activate at:
https://ubuntu.com/livepatch
```

```
89 packages can be updated.
39 updates are security updates.
```

```
Last login: Fri Apr 3 19:45:17 2020 from 107.13.161.147
export openblas_num_threads=1; export OMP_NUM_THREADS=1; python EC2.py
ubuntu@ip-172-31-0-69:~$ export openblas_num_threads=1; export OMP_NUM_THREADS=1; python EC2.py
12:05, 04/12; num of cores:16
large_A_vary_sd_R
```

```
Basic setting:[rep_times, sd_0, sd_D, sd_u_0, w_0, w_A, u_0_u_D, sd_R_range, t_func] = [16, None, None, 20, 0.5, 1.5, 0, [0, 10, 20, 30], None]
```

```
-----
[pattern_seed, day, sd_R] = [2, 7, 0]
```

```
max(u_0) = 145.8
0_threshold = 100
number of reward locations: 9
0_threshold = 105
number of reward locations: 7
0_threshold = 110
number of reward locations: 6
0_threshold = 115
number of reward locations: 3
0_threshold = 125
number of reward locations: 2
target 1 in 5 DONE!
^CTraceback (most recent call last):
Process Process-4:
  File "EC2.py", line 81, in <module>
    with_MF = with_MF, with_NO_MARL = with_NO_MARL, with_IS = with_IS,
Process Process-5:
  File "/home/ubuntu/simu_funs.py", line 63, in simu
Process Process-14:
Process Process-12:
  value_reps = parmap(once, range(OPE_rep_times), n_cores)
  File "/home/ubuntu/_uti_basic.py", line 80, in parmap
    [q_in.put((None, None)) for _ in range(nprocs)]
  File "/home/ubuntu/_uti_basic.py", line 80, in <listcomp>
    [q_in.put((None, None)) for _ in range(nprocs)]
  File "/home/ubuntu/anaconda3/lib/python3.7/multiprocessing/queues.py", line 82, in put
Process Process-16:
Process Process-9:
Process Process-8:
Process Process-11:
Process Process-1:
  if not self._sem.acquire(block, timeout):
KeyboardInterrupt
ubuntu@ip-172-31-0-69:~$ export openblas_num_threads=1; export OMP_NUM_THREADS=1; python EC2.py
12:21, 04/12; num of cores:16
large_A_vary_sd_R
```

```
Basic setting:[rep_times, sd_0, sd_D, sd_u_0, w_0, w_A, u_0_u_D, sd_R_range, t_func] = [16, None, None, 20, 0.5, 1.5, 0, [0, 10, 20, 30], None]
```

```
-----  
[pattern_seed, day, sd_R] = [2, 7, 0]
```

```
max(u_0) = 145.8  
0_threshold = 125  
number of reward locations: 2  
target 1 in 1 DONE!
```

```
-----  
Value of Behaviour policy:55.239
```

```
0_threshold = 125
```

```
MC for this TARGET:[68.265, 0.065]
```

```
[DR/QV/IS]; [DR_NO_MARL, DR_NO_MF, V_behav]
```

```
bias:[[-13.91, -13.91, -13.96]][[-20.03, -68.26, -13.03]]
```

```
std:[[0.74, 0.73, 0.48]][[0.37, 0.0, 0.23]]
```

```
MSE:[[13.93, 13.93, 13.97]][[20.03, 68.26, 13.03]]
```

```
MSE(-DR):[[0.0, 0.0, 0.04]][[6.1, 54.33, -0.9]]
```

```
***
```

```
=====
```

```
***** THIS SETTING IS GOOD *****
```

```
[[13.93 13.93 13.97 20.03 68.26 13.03]]
```

```
time spent until now: 10.3 mins
```

```
12:31, 04/12
```

```
-----  
[pattern_seed, day, sd_R] = [2, 7, 10]
```

```
max(u_0) = 145.8  
0_threshold = 125  
number of reward locations: 2
```