



How to Use Linux Server on EMCLAB20

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July 17th, 2019

Linux Server on EMCLAB20

- Linux server with two GeForce GTX 1080 Ti gpu can support Python projects and accelerate the training of neural network.

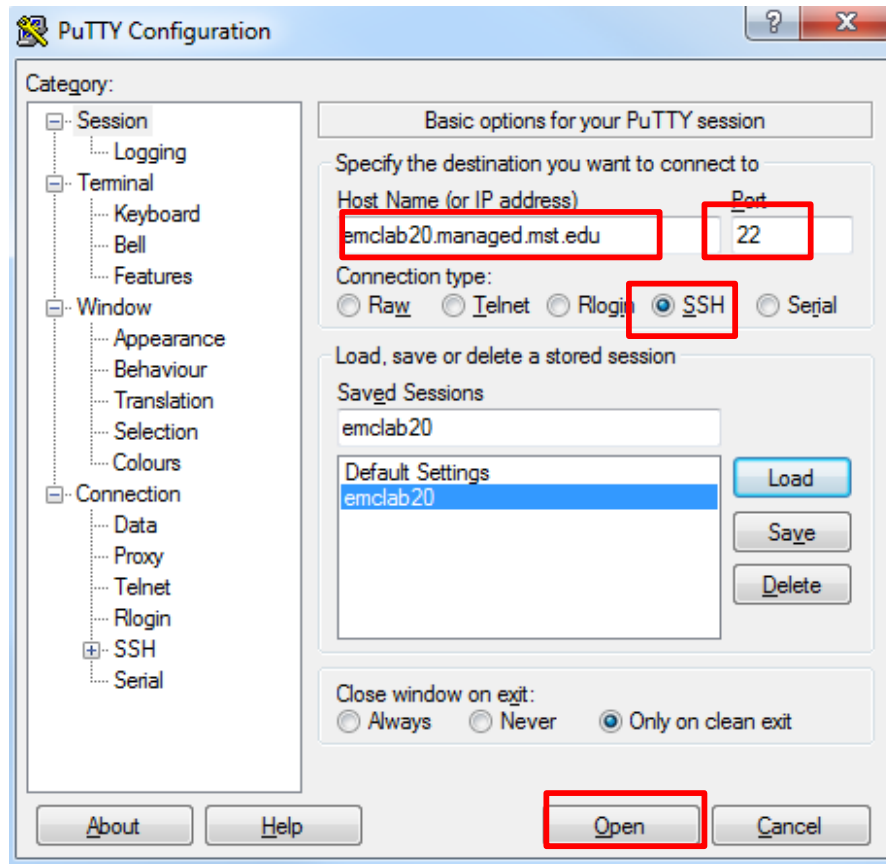


Access to EMCLAB20

- If you need access to EMCLAB20 to run Python projects, please contact Ling Zhang (lzd76@mst.edu)

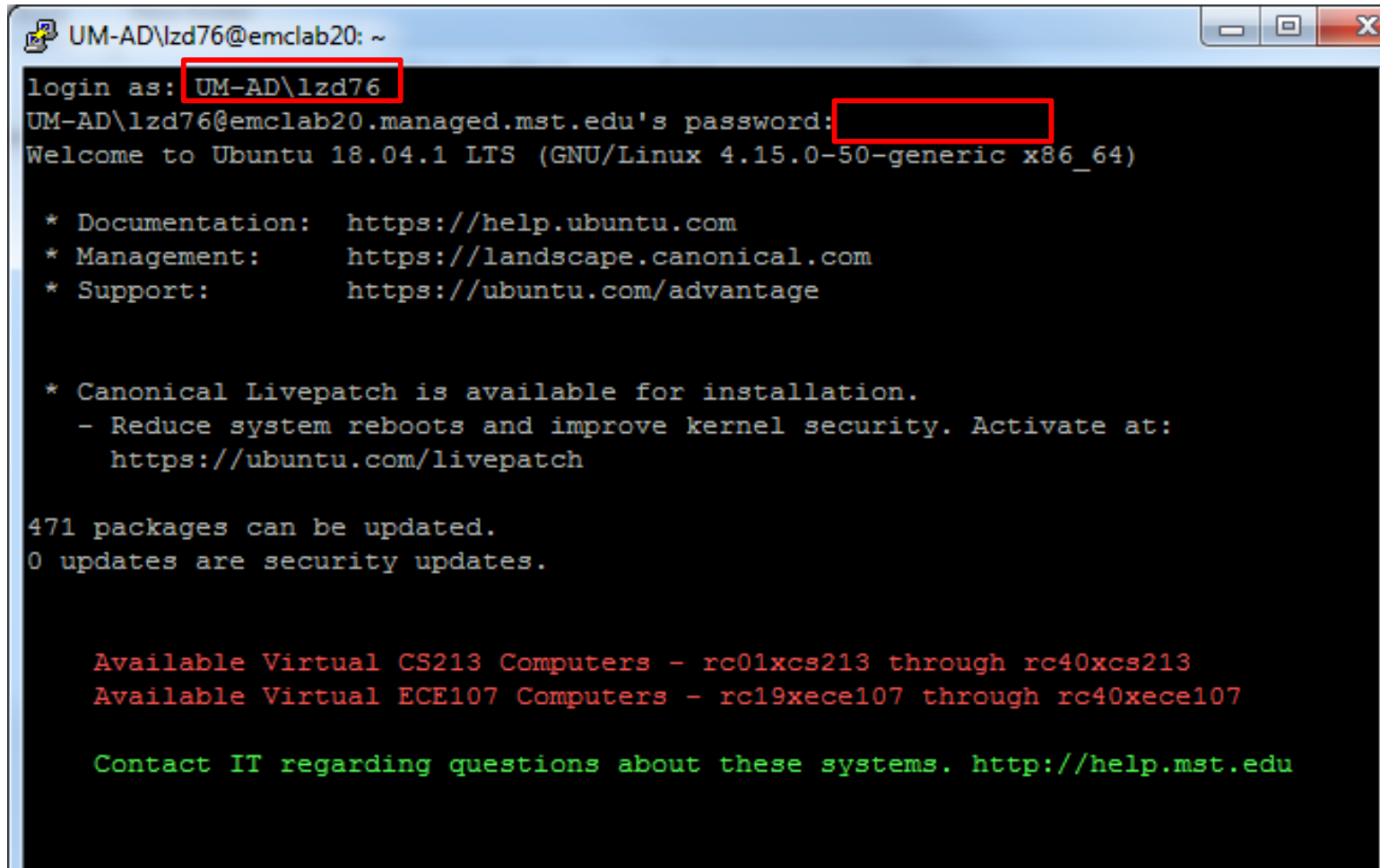
Log into Server using Putty

- The IP address of linux server EMCLAB20:
 - **emclab20.managed.mst.edu**
- Log in using Putty:



Log in Using Username and Password

Input your MST username and password as follows: (password won't be displayed)



```
UM-AD\lzd76@emclab20: ~
login as: UM-AD\lzd76
UM-AD\lzd76@emclab20.managed.mst.edu's password:
Welcome to Ubuntu 18.04.1 LTS (GNU/Linux 4.15.0-50-generic x86_64)

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

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

471 packages can be updated.
0 updates are security updates.

Available Virtual CS213 Computers - rc01xcs213 through rc40xcs213
Available Virtual ECE107 Computers - rc19xece107 through rc40xece107

Contact IT regarding questions about these systems. http://help.mst.edu
```

Run Python Program

```
UM-AD\lzd76@emclab20:~/Desktop/RL-PCB-Optimization$ ls
config.py  models      README.md  source      utils.py
main.py    __pycache__ reinforce_simple_test.py  train.py  z_functions.py
UM-AD\lzd76@emclab20:~/Desktop/RL-PCB-Optimization$ python main.py
```

Run your python program

Install the package you need

```
UM-AD\lzd76@emclab20:~/Desktop/RL-PCB-Optimization$ pip install numpy
```

Use Tensorboard

Access the folder where you store your Tensorboard results

```
UM-AD\lzd76@emclab20:~/Desktop/PDN RL v1$ tensorboard --logdir=source/summary  
TensorBoard 1.14.0 at http://emclab20:6006/ (Press CTRL+C to quit)
```

Enter this address in your local browser to see the tensorboard results

Modify Python File on Server Remotely

Use vim to edit some python file on the server:

```
UM-AD\lzd76@emclab20:~/Desktop/RL-PCB-Optimization$ vim config.py
```

Press 'a' to start editing

Press 'Esc' to exit editing

Press ':wq' to finish editing and quit

Upload Files Through FileZilla

Besides using Github, another way to upload files onto the server in Windows system is through FileZilla. Enter the host name, your username and password, and port number, and then you can have access to the server, and upload your local files onto the server through Github.

