

EECE5640 Computer Access Information

Prepared by: David Kaeli

The following is information for computing systems that can be used for EECE5640.

Accessing the College of Engineering Linux systems and the Discovery Cluster from off campus will require you to set up either two-factor authentication (2FA) using Duo or utilizing the University's virtual private network (VPN) using GlobalProtect. Note that the VPN may not be available from locations outside of the US. Getting access to Northeastern Computer Systems may require you to install software on your computer. Start by reading through this website:

<https://digitalresilience.northeastern.edu/wfal/>

For a majority of the homework assignments in this class we will be using the College of Engineering Linux cluster. Once you have completed the installation of 2FA or VPN support, you should be able to access the gateway system using ssh. If you do not have ssh available on your desktop, there are plenty of options to pick from that are free, including putty and MobaXterm. If you are using the MacOS operating system, ssh is available by using the Terminal App and typing the ssh command (as mentioned below) at the system prompt within the Terminal window. Windows 10 also allows you to run ssh from the "cmd" window. If you do not need GUI access (and you should not for this class), then these simpler options are available.

All COE students (both undergraduate and graduate students) should have a COE account. If you need information about your COE account, you can email help@coe.neu.edu (best to copy me as well). For non-COE students, send a note to help@coe.neu.edu and copy me.

To login, do the following:

```
ssh gateway.coe.neu.edu -l YOUR_USERID
```

When prompted, enter your password.

General information about the College of Engineering systems can be found here:

http://help.coe.neu.edu/coehelp/index.php/Main_Page

You are running on one of 3 Intel X86-64 Linux platforms. If you are unfamiliar with Linux, the TA will provide a Zoom session for the class, covering the basics. You will have logged into one of the Linux head nodes (Theta, Iota or Zeta – these are the names of the systems). To login into one of the 32-bit Linux nodes (alpha or beta) you will need to use the following command:

```
ssh SYSTEM_NAME -p 27
```

For example, to login to the alpha system, I would issue:

```
ssh alpha.coe.neu.edu -p 27
```

The College of Engineering also provides a virtual lab (using containers) environment. You may want to consider using this environment for your work. Information can be found here:

<http://help.coe.neu.edu/coehelp/index.php/VLAB>

You will utilize the Discovery cluster for some assignments or your project. This requires an account. I will need to approve of your account, so list me your sponsor. You can find information on getting access to Discovery:

[Discovery access](#)

Go here to request an account:

[Request an account](#)

Also, make sure to review the policies governing proper use of the Discovery Cluster:

[Discovery proper user](#)

We have created a reservation for the class on Discovery.

```
$ scontrol show reservation EECE5640
```

To obtain an interactive node using the reservation, you can use the following syntax:

```
$ srun -p reservation --reservation=EECE5640 -N 1 -n 1 --gres=gpu:1 --pty  
--time=03:00:00 /bin/bash
```