

Using the SCC

Fall 2025

Brian Gregor (bgregor@bu.edu)
Research Computing Services

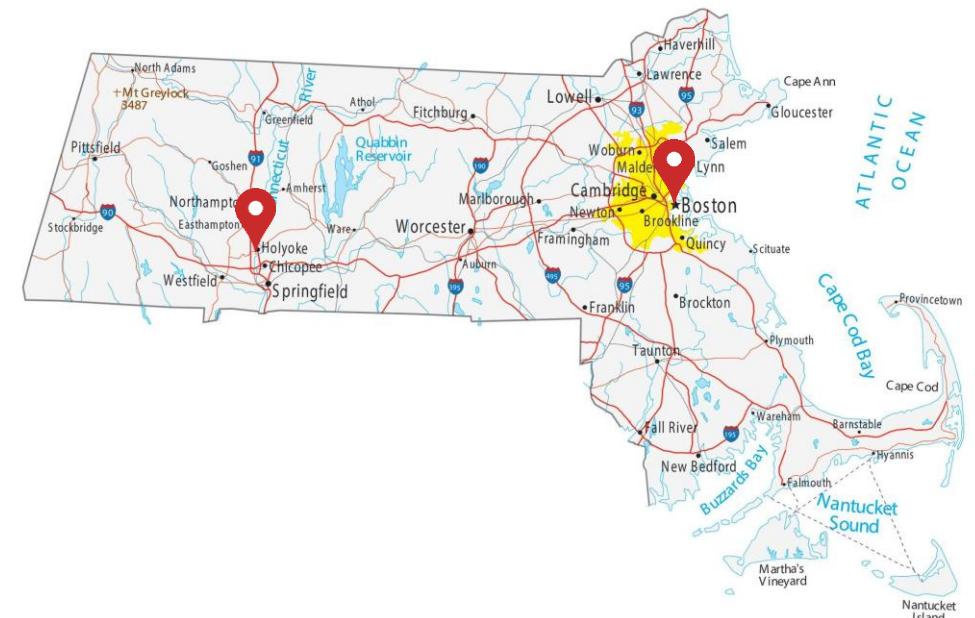
<https://rcs.bu.edu>

Information Services & Technology



BU Shared Computing Cluster (SCC)

- Located at the [MGHPCC](#) in [Holyoke, Massachusetts](#).
 - Alongside clusters from Harvard, MIT, NU, UMass, URI, and Yale
- 1070 compute nodes (servers)
 - 29,234 CPU cores
 - 516 GPUs
 - 16.6 PB of storage
- BU's [Research Computing Services](#) group maintains the BU SCC.



SCC Access

- SCC OnDemand is the easiest way to access the SCC:

<https://scc-ondemand.bu.edu>

- Google Chrome is the recommended browser
 - This browser properly handles copy & paste in OnDemand Desktops.
- Beyond interactive use:
 - You can create and submit non-interactive “batch” jobs to the cluster job queue.

- **Do not use the “BU Guest” WiFi network to access OnDemand.**
 - The interface will break, and it will be unusable.
- Use the [eduroam](#) WiFi network or a wired Ethernet connection.
 - Wired Ethernet gives the best performance if you have an office or BU dorm room.
 - Modern laptops usually require an external USB adaptor (~\$20 plus a \$5 cable).



Links to RCS Documentation

- [File transfers](#) to/from your own computer.
- [OnDemand](#) documentation
- [Batch](#) (non-interactive) Jobs
- [Linux guide](#) for SCC users.
- Linux usage [quick reference](#).
- Quick reference for [SCC commands](#).
- Home directory quota (just 10GB) is full?
[Start here](#).
- If your professor and/or TA has asked you to submit a help ticket to us, fill out the [form here](#).
 - Choose “Research Computing” in each box, then describe your problem in as much detail as you can.

OnDemand Jupyter

- Load the **miniconda** and **academic-ml/fall-2025** modules
- Pre-launch command:
 - **conda activate fall-2025-pyt**
 - This is a PyTorch-based conda environment.
- Choose 4-8 cores and 1 GPU when using a GPU
 - 4 is usually plenty
 - Request just 1 GPU
- For CPU-only, choose 4 or 8 cores.

Jupyter Notebook

This app will launch a Jupyter Notebook server on a compute node.

List of modules to load (space separated)

Select Modules

Pre-Launch Command (optional)

Interface

Working Directory

Select Directory

The directory to start Jupyter in. (Defaults to home directory.)

Extra Jupyter Arguments (optional)

Number of hours

Number of cores

Number of gpus

GPU compute capability

Project

Extra qsub options

I would like to receive an email when the session starts

Launch

This app will launch a VS Code server using Code Server on a compute node.

Codeserver Version

4.96.4

Additional modules to load (space separated, optional)

miniconda academic-ml/fall-2025

Select Modules

Pre-Launch Command (optional)

conda activate fall-2025-pt

Working Directory

Select Directory

The directory to start in. (Defaults to home directory.)

Number of hours

6

Number of cores

1

Number of gpus

0

Project

ds542

Extra qsub options

 I would like to receive an email when the session starts

Launch

OnDemand VS Code Server

- Code Server is open source, based on Microsoft VS Code, it runs in your browser.
- Same setup options as Jupyter
- Important:** the Code Server extension marketplace is **NOT** the Microsoft one you see with VS Code on your laptop.
 - Practically speaking, this means that Github Copilot is not available.

OnDemand – start a Desktop Session

- Same setup for the number of hours, cores, and GPUs as the other two.
- To activate the PyTorch environment execute this in a terminal:

```
conda activate fall-2025-pyt
```

- To run genuine Microsoft VS Code:
 - module load vscode/1.99.2
 - code

- To run Jupyter:
 - jupyter notebook
 - OR
 - jupyter lab

Desktop

This app will launch an interactive desktop on a compute node.

List of modules to load (space separated)

Select Modules

Working Directory

Select Directory

The directory to start in. (Defaults to home directory.)

Initial command to run

Number of hours

Number of cores

Number of gpus

Project

Extra qsub options

I would like to receive an email when the session starts

Launch