CSc 8530
Parallel Algorithms

Spring 2019

April 9th, 2019

HPC CUDA cheatsheet

- To copy from your local computer to the HPC server (using Putty on Windows)

```
pscp "C:\Users\UserName\Documents\file.cu" campusid@hpclogin.gsu.edu:/home/users/campusid
```

  - In Linux (and I believe Macs) use `scp` instead

- To copy from the HPC server to a GPU node (CDER01 in this example):

```
scp "/home/users/file.cu" campusid@cder01:/home/users/campusid
```

  - Check the list of nodes and their capabilities here:
    `https://help.rs.gsu.edu/display/PD/CDER`

- To compile the file using NVCC

```
nvcc file.cu -o file.exe
```

  - You might need additional compilation flags
  - The `file.exe` name is arbitrary; you can use whatever you want

- To run the code (assuming the file is in the current folder):

```
./file.exe
```

HPC CUDA cheatsheet

- To log in from your local computer to the HPC server (using Putty on Windows)

```
putty campusid@hpclogin.gsu.edu
```

  - In Linux (and I believe Macs) use `ssh` instead
- To log in from the HPC server to a GPU node (CDER01 in this example):

```
ssh campusid@cder01
```

- Remember that you have to log in to a GPU node to access nvcc and CUDA
- Also remember that you have first log in to GSU's VPN before you can access the HPC servers