

How to connect to GPU cards

C4lab in CSE has 20 nodes that have recent GPU's installed in them, which are available via the "devgpu" partition. You can use them to compile and run your CUDA programs.

In order to use the cards, you need to remote login to [c4cuda](#) using your NetID and password. We have 20 GPU nodes available for use, so when you want to connect to them, you have to specify the node number that you want to connect. For example if you want to connect to node 4, you have to login to [c4cuda04](#). Your connection command looks like this:

```
ssh NetID@c4cuda04
```

You can change the last two numbers from 01 to 20.

You can also first connect to "circe" using this command:

```
ssh NetID@circe.rc.usf.edu and then from there connect to GPU nodes using the previously mentioned command.
```

Then Load the CUDA module on the node you are assigned:

```
[user@@c4cuda04]$ module load apps/cuda/7.5
```

There's an executable named deviceQuery that you can run and that will tell you all about the card:

```
[user@@c4cuda04]$ deviceQuery
```

Compiling a CUDA program

1. Open new document and write your program and save it with .cu extension.

2. Compile it with:

```
nvcc [file_name.cu] -o [output_executable_filename]
```

3. Run your CUDA program:

```
./output_executable_filename
```