CS450/550: Parallel Programming

Assignment 0: Access to a Linux System

Due: See BBLearn

Submission Instructions

Please submit the answers to the questions on BBLearn as a pdf. For questions 1 and 2, you can just write that you have successfully set up your machine. You should turn in a pdf called CS450_aX_NAME.pdf, where "NAME" is your NAU username and "X" is the assignment number (e.g., CS450_a2_mg1234.pdf). Assignments need to be turned in via BBLearn.

Question 1: Linux System

Some assignments in this course require that you use a POSIX-compliant system. If you already use Linux, or Mac OSX, either as your OS or as a guest OS via virtualization, then you're (nearly) done.
Otherwise, you have two options:
Option #1 (recommended): You install a Linux Virtual Machine on your computer. I recommend using the VirtualBox VM manager, which is both easy to use and free (other options include VMWare and VirtualPC). You can download Ubuntu desktop distribution, which you can get from `http://www.ubuntu.com/download`. For instance you can get the desktop version by downloading the file ubuntu-20.04.1-desktop-amd64.iso.
Option #2 (more difficult): You can install a Linux partition on your machine so that it becomes dual-boot (e.g., Windows/Linux). Tons of people do this all the time, so there are many step-by-step guides on-line. A decent one for setting up a dual-boot Windows/Linux machine is on the website: `https://help.ubuntu.com/community/WindowsDualBoot`. I've never tried this myself but has been used successfully by many people. See this page for a Mac OSX/Ubuntu dual boot `https://help.ubuntu.com/community/MactelSupportTeam/AppleIntelInstallation`.
A note on using OSX: We will use semaphores in class. However, they are deprecated on most OSX installations. Therefore, you will want to get a Linux installation working.

Question 2: Compiler

So that we don't run into problems with using different compilers, please compile with the gcc compiler, which also comes with Ubuntu (version 5 or higher is preferred).

You can test that your installation works correctly by compiling and running the test program, `A0test.c`. See the comments at the top of the file.

Question 3: Miscellaneous Questions

1. Have you programmed in C before?
2. Have you programmed in C++ before?
3. Have you programmed using CUDA before?
4. Have you written any parallel code before?
5. Have you used Linux/UNIX before?

Question 4: Motivation

What is your motivation for taking this course? For example, you want to learn how to make some application go faster, you think the subject matter is (might be) interesting, you would rather be in another elective but it was full, etc.?