CS 598: Parallel Programming Models

Project

You will be required to deliver a project of your choice at the end of the semester. The topic is the student's choice but must be discussed with me. Acceptable topics are simulation of hardware for parallel systems, compiler and operating system issues for parallel systems, large scientific applications that are adapted for parallel execution. Note that a simple parallelization of a code is not sufficient for a passing grade. The project has to show an innovative design and a thorough analysis.

You need to send me an email about a tentative topic and discuss it with me at a time of mutual agreement. Then you need to send me a formal proposal. It has to contain the following information:

- Title/author(s)
- Topic description (what area of parallel processing will be explored). It should be essentially an abstract, theoretical basis and possible accomplishment goal. If possible and appropriate it should include the specifications.
- Development plan Stages of the project development and milestones and their timeline.
- Deliverable (what code will be delivered)
- Testing plan (possible inputs, expected outputs, computer systems targeted)
- Expected performance (in a general sense) and planned experiments. This includes a possible demo or timings or any other proof that the project does what it claims to do.

Around the beginning of November you need to submit a "midterm" report that demonstrates progress towards your goal. That will leave you about a month to complete the project.

I prefer single authors but if you want to work together with a classmate you will have to list each person's responsibilities and accomplishments.

... and now have fun!

Fall 2022 page 1