CS 49901 11952

This course is an integrative experience that brings together all components of the undergraduate computer science curriculum in an applied, hands on real world setting. The course is three credits lecture and one credit lab. Prerequisite: CS 45201, 43901, 33006, 43005.

In particular, we will work in project teams to design and implement middleware for cluster computing

Course Requirements

- Working in a group (3-4 members) design, implement, and demonstrate a computer cluster middleware project for computational steering. The Wikipedia definition for middleware is “computer software that connects software components or applications. The software consists of a set of enabling services that allow multiple processes running on one or more machines to interact across a network.” The software components that we will be working with are OpenMPI and Chromium. A computational steering environment is a set of tools to enable a user to interact with and change the execution behavior of a program while it is running.

- Project teams will produce an initial report describing their project, its goals and a time line for its implementation. Over the course of the semester that report will be update with completed software and documentation. Reports are submitted as wiki pages. The class wiki is capstone.cs.kent.edu/mediawiki.

- Approximately every two weeks each team will present a progress report to the classes discussing what they have accomplished and discussing any revisions in project time lines and goals. The project reports will account for 85% of the class grade. They will be posted on the wiki and given verbally in class. The grade for a project report will be determined by quality of the implementation and the clarity of the report. Each member of the team will be expected to present part of the report.
Class and Lab Participation (lab interactions, lab productivity, class discussions, finding solutions to posted problems, etc): 15% of the grade.

INSTRUCTOR

- Instructor: Arden Ruttan, 270 MSB. Phone 29066. User ID: ruttan. It is best to send me email when you wish to contact me.
- Office Hours: 6:45-7:30 T, 3:30-4:40 H and by appointment.

Lab Instructor

- Andrew Sutton
- www.cs.kent.edu/~asutton

Class Notes

Time: 2:15-3:30 TH MSB 276.

Academic Honesty

Please note the University Policy on Cheating and Plagarism and the potential penalties associated with those activities

Students with Disabilities

University policy 3342-3-18 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through Student Disability Services (contact 330-672-3391 or visit www.kent.edu/sds for more information on registration procedures).