MA/CS 341 – Scientific Computing

Final Project

Permitted to work in groups of two

The Final Project will be due at the end of the Final Exam time slot for this course. That session will be ***required*** if you haven't demo'ed your code (see below) and explained how to run it, and otherwise it is an optional lab session for any final questions, etc.

The first part of this course has focused on content common to a variety of High-Performance computing environments.

This final project is an opportunity for you to explore a topic in-depth, most probably from your discipline. Most importantly, you should find a topic that you are interested in and that you find engaging.

It is a significant portion of your final grade, so the expectation is that it will be comprised of significant effort and original work, and in most cases that will include programming.

You will have a near term deadline to finalize your topic, your goals for the Final Project, and whether you are working with a partner. Please note that if you work with a partner, ***only one of you*** needs to submit this work. In addition, in class you will present a brief (3-4 min) update of your topic and current progress.

You are welcome to use or reference the work of others, but be sure to clearly cite any work that is not from you (or your partnership).

Your deliverables for the Final Project will include:

- A paper of at least 4 pages (not counting any title pages or table of contents), double spaced. This paper will cite at least two sources for your topic. In particular, your paper will:
    - Have an introduction.
    - Have a conclusion.
    - Describe applications of the topic.
    - Describe any advantages and disadvantages of the implementation.
    - Describe the method used to confirm the code is functioning properly.
    - Explain all formulas used, if applicable.
    - Properly titled and labeled graphs.
- The source code file(s) and/or code "notebook(s)" used to implement and explore your topic.
- A brief (3-4 minute) presentation of your topic, your goals, and your progress.
- A **demonstration** of the code used in your final project.
- An **explanation** of how to run the code used in your final project.