

Summer RA Position

Dates: maximum four months: May to August 2008

Supervisor: Diane Kelly, Department of Mathematics and Computer Science, RMC

Location: office space available at RMC; working remotely possible

Purpose of Research:

There is a very large quantity of software engineering literature on software testing. Few, if any, of the testing techniques and methods have been researched as to their effectiveness for computational science and engineering application software. By effectiveness we mean both in finding “bugs” and in time-needed-to-use. We would like to investigate some of the more likely candidate testing techniques with computational code that is, or will be, in real use. Because of the deep domain content of computational code, generally only the scientist-developer can judge if test results are acceptable. A close collaborative effort is needed between the scientist-developer and the tester. We would like to set up this collaboration for this research.

Requirements:

A graduate student or a post-doc who has been writing or making changes to a piece of computational software, has the source code available, and who has the interest in spending time doing a comprehensive test of their software. It would be useful if the candidate has already done some testing and has data and results available.

Contact: Diane Kelly at kelly-d@rmc.ca