Programmer – Summer 2014

The computational materials group at UW-Madison is looking for 2-3 programmers to help us realize transformative technology in the area of molecular-level computational materials simulation and design. Programmers will add functionality onto a materials science python toolkit whose primary goals are: 1) to gather information on how, and how fast, atoms travel through materials, and 2) to characterize how many and what types of imperfections there are in a material, using computational methods. This collected information, when paired with appropriate experiments, is critical for energy applications like batteries, fuel cells, and nuclear reactors.

This job requires 20-40 hours/week (40 hours/week preferred) and will involve:
- Programming in python to add functionality onto the materials computation toolkit, completing assigned tasks each week
- Incorporating existing group code into the toolkit, in Python
- Interfacing external programs with the toolkit
- Talking with researchers about their programming needs
- Attending weekly meetings

Our ideal candidate has a comfortable proficiency with the following:
- Python programming
- Basic Unix commands
- GitHub version control
- Reading and understanding existing programs written in various programming languages (FORTRAN, C++, MATLAB, etc.)

Our ideal candidate is probably a CS graduate student, but talented graduate or undergraduate students of any year or major are encouraged to apply. Knowledge in materials science is helpful but not required.

The position will start May 27 or June 3 and end August 24, with some flexibility for travel or days off, and the possibility of extended employment after the summer. Compensation will be commensurate with experience, hourly availability, and academic status, ranging for example from $12/hour without benefits to a 50% Project Assistantship (PA) with benefits and tuition remission (for graduate students).

If interested, please submit a resume, a letter of reference, and the contact information of two additional references to CMG at: uw.cmg.hire.ht@gmail.com