

Open position - Software Engineer

An open position for a software engineer is available at the University of Chicago and at Argonne National Laboratory at MICCoM (<http://miccom-center.org/>).

An excellent candidate is sought with experience in the development of complex software architectures to support the development and deployment of MICCoM. The software engineer would work with a team of 10+ PhDs/postdocs contributing to MICCoM projects.

Major duties and responsibilities:

Maintain and develop software infrastructure, including :

- Software design and development of core functionality
- Plugins for community codes and scientific workflows
- Database storage, query efficiency, and scalability
- Remote resources management (supercomputers and storage)
- REST APIs and GUI front-ends
- Communicate with users for support, feedback, and strategic development

Skills and experience:

- Managing large codes/projects in a team (version control systems, issue trackers, unit test, continuous integration and other good software practices)
- Knowledge of software design (UML, design patterns, agile development, etc.)
- Programming with C++ FORTRAN; FORTRAN and Python a plus
- Algorithm optimization and parallel programming expertise preferred
- Web (HTML5, JavaScript, AJAX, jQuery) and app design would be a plus

A scientific background (e.g. physical or engineering sciences) is welcome, but not required. For interested applicants, scientific research challenges can be incorporated in the effort.

Typical candidates will be independent, motivated and passionate, and have MSc in computer science or comparable skills and experience; a PhD in science or engineering would be appropriate for research-oriented applicants. Preference will be given to candidates with previous experience in similar projects.

The environment

The position will be hosted at the Institute for Material Engineering (IME), at the University of Chicago, and at Argonne National Laboratory under the supervision of Prof. Giulia Galli. IME offers a thriving intellectual environment, outstanding computational resources and facilities, and a very active and lively community.

Applications

Candidates should submit 1) a full CV, including contacts for at least two references, and 2) a cover letter of intent to both gagalli@uchicago.edu and mgovoni@uchicago.edu, with "Software Engineer Application" in the subject line (PDF attachments only). Shortlisted candidates will be contacted individually for interviews, usually over Skype videoconferencing.

Appointments at IME are on a yearly renewable basis.