



GLOBAL ENGINEERING & MATERIALS, INC.

Engineering and Innovative Solutions

GEM Princeton NJ Opportunity

Research Scientist

Global Engineering and Materials, Inc. (GEM) is looking for candidates to fill a position of a Research Scientist. The ideal candidate will have demonstrated experience in most of the following fields: advanced computational mechanics and toolkit development, fatigue and fracture of composite and metallic structures, computational geometry, and extended finite element methods. The candidate should also demonstrate (1) strong technical knowledge and experience in the design of solution modules and novel approaches; and (2) strong communication skills inside and outside the company. In-depth experience in commercial FEM customization, and GUI design and implementation is a plus.

Job Duties:

- Develop advanced solution methods to efficiently and accurately capture the material and failure sequence of metallic, composite, and hybrid structures under static, thermal, dynamic, and fatigue loading.
- Implement explicit, implicit, direct, and iterative solution methodologies.
- Perform testing and develop and maintain documentation for GEM's software products from an end-user perspective.

Position Requirements:

- Advanced degree with 3+ year working experience in computational mechanics and software development.
- Extensive experience in programming languages (C, C++, C#, Python Scripting, OpenMP, OpenCL and Fortran 95/90/77)
- Extensive experience in FEM pre and post processing and using commercial finite element tools such as Abaqus.
- Proficiency in object-oriented design, familiarity with common software development, testing/QA/bug management, and software training procedures.
- Excellent verbal and written communication and troubleshooting skills.
- Highly motivated, good team worker to accomplish group objectives, and willing to take a leadership and mentorship in developing both technology and commercial markets.

GEM offers competitive pay and benefits within a technically challenging environment. Qualified applicants are invited to send a detailed Vitae with the name, address and phone number of 3 references via [Email \(contact@gem-innovation.com\)](mailto:contact@gem-innovation.com).

About GEM:

Global Engineering and Materials, Inc. (<http://www.gem-innovation.com>) is a high-tech firm and provides its clients with innovative research and development, consulting services and multi-physics software tool development.

Date of Posting: 05/01/2014