



Position Opening — Immediate Availability

Research Scientist — Computational Solid Mechanics

IllinoisRocstar LLC (www.illinoisrocstar.com) is seeking an outstanding candidate for a research scientist position (introductory- or senior-level), whose primary mission is to develop, implement and validate material models for use in large-scale numerical simulation codes. As a research scientist, you will work in the computational solid mechanics area using state-of-the-art parallel computational platforms to address outstanding problems in the constitutive properties of energetic and/or non-energetic materials. You will be responsible for developing and implementing computational algorithms for numerical solutions of multiphysics PDE's with emphasis on complex heterogeneous materials. The position requires strong collaborations with experimentalists throughout the academic community to design and simulate results from small-scale and integral validation experiments for material models.

Qualifications

- Ph.D. in engineering, physical sciences, applied mathematics, or related field or a masters degree with at least 5 years experience developing and applying advanced finite element methods, preferably in a massively parallel computing environment.
- Demonstrated proficiency in scientific programming and computational engineering mechanics.
- Proficient in C/C++, Fortran or other programming languages.
- Proficiency with Unix or Linux operating systems is preferred.
- *U.S. citizenship or Permanent Residency required.*

Application

Via e-mail only – in a single pdf file include application letter, resume, and two PowerPoint slides describing your work experience and technical interest to wdick@illinoisrocstar.com

Contact

William A. Dick, Chief Executive Officer
IllinoisRocstar LLC
217-417-0885
wdick@illinoisrocstar.com

About the Company

IllinoisRocstar (www.illinoisrocstar.com), based in Champaign, Illinois, uses the *Rocstar Simulation Software* suite to analyze fluid flows, combustion, materials, structures, and their interactions while solving engineering and scientific problems for commercial clients and government agencies. Employing integrated simulation software, the members of IllinoisRocstar utilize first-principles based physics for high-fidelity numerical analysis in complex changing geometries. IllinoisRocstar is also experienced in micromechanics, combustion modeling, and granular material pack modeling. The principals and members of the company are seasoned leaders and senior scientists using advanced computation and simulation techniques in these areas to understand the implications of 3-D fluid-structure interactions on the design and application of materials and engineered devices. IllinoisRocstar seeks to commercialize, extend and implement simulation software, and use these tools in commercial engineering analysis and as a product line of stand-alone software.