us: Post Doctoral Researcher [PhD in math, computer science, stat, related field; strong backgrnd in high performance numerical linear algebra; C++ required, Fortran & Matlab desired, MPI, OpenMP; research in Algorithms R&D for Scalable Multicore Computers, publish] / Computer Science Research Institute (CSRI) at Sandia National Laboratories

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CSRI Post Doctoral Researcher: Algorithms R&D for Scalable Multicore Computers

Department Description:

The Computer Science Research Institute (CSRI) at Sandia National Laboratories conducts research in mathematical and computer sciences with application to a broad range of science and engineering applications of national and global importance.

The CSRI maintains world-class research programs in computational and discrete mathematics, computer science, scalable algorithms, and large-scale high-performance computer systems. The CSRI is the primary means by which Sandia engages the external computational-science research community and CSRI annually hosts over 50 faculty visitors and 25 summer graduate student interns in an exciting and highly multidisciplinary research environment for tackling computational problems at extreme scales. CSRI researchers have access to Sandia's state-of-the-art parallel-computing environment, including Red Storm with over 50,000 cores, numerous large-scale clusters, visualization servers, and other specialized computing systems such as the latest multicore and multithreading architectures.

Job Description:

The CSRI seeks a postdoctoral researcher to conduct innovative research in Algorithms R&D for Scalable Multicore Computers. Candidates are sought with a strong background in high performance numerical linear algebra including parallel multilevel algorithms, algorithms for multicore architectures, and object-oriented scientific software engineering. Experience with Trilinos software is desirable. Outstanding applicants in related areas will also be considered.

This postdoctoral position is for motivated and enthusiastic individuals with excellent communication skills who have the ability to work in a collaborative research environment. Successful applicants will be expected to develop new ideas, publish in journals and conferences, and present at national and international venues.

Required / Desired Criteria:

- Applicants must have (or soon have) a Ph.D. in mathematics, computer science, statistics, or related fields with a record of academic excellence (3.5 GPA or higher).
- Programming experience (C++ required; Fortran & Matlab desired) with knowledge of parallel programming such as MPI, OpenMP, and/or threads desired.
- Communication skills appropriate for participating in multi-disciplinary teams of mathematicians, engineers and computer scientists.
- Research experience in your field of expertise as evidenced by presentations, technical publications, released software, and/or work with applications.
- Interest and experience in the use of advanced object-oriented software engineering practices and processes is desirable.
- Experience in high-performance computing on distributed, parallel, and/or other specialized architectures is also desired.

To access the posting, go to www.sandia.gov, click on Employment, click on Career Opportunities, click on Search Job Postings, enter the job opening number (61550) in the Keywords field of the Basic Job

Search, press Search, and scroll down to see the posting. Applications should include a detailed CV, letters sent from at least three references, and a cover letter or research statement describing your background and research interests.

For more information visit http://csri.sandia.gov or contact Scott Collis, sscoll@sandia.gov.

Equal Employment Opportunity:

Sandia National Laboratories is an Equal Opportunity Employer M/F/D/V. If this position requires a Department of Energy (DOE)-granted security clearance, U.S. citizenship and employee eligibility for clearance processing will be required at the time of hire. If you hold dual citizenship and you accept a job offer for a position that requires a DOE-granted security clearance, you may be asked by DOE to renounce your foreign citizenship and retain only your U.S. citizenship.