

Postdoctoral Researcher -- Radix Laboratory

The Mathematics and Computer Science (MCS) Division at Argonne National Laboratory invites outstanding candidates to apply for a postdoctoral research position in the Radix Laboratory focusing on the research and development of novel techniques and tools for data movement and storage in petascale systems and beyond. This work will involve working with new and existing I/O system software to improve performance and reliability of storage systems at large scale.

Applicants must have recently received a Ph.D. in computer science or a related discipline and should have expertise in system software for supercomputers. Considerable knowledge is required in one or more of the following areas: message passing, parallel file systems, operating systems and the Linux kernel, fault detection or fault tolerance, and parallel programming. Candidates should be able to create, maintain, and support high-quality software. Also desired are good collaborative skills, including the ability to work well with other laboratories and universities.

Computer scientists in the Radix Laboratory design, implement, and study scalable system software for petascale systems. Research is hands-on and performed on cutting-edge compute systems such as the Argonne 500TFlop Blue Gene/P supercomputer, part of the Argonne Leadership Computing Facility. Projects in the Radix Laboratory include MPICH2, an implementation of the Message Passing Interface; ZeptoOS, a lightweight Linux kernel for supercomputers; FTB, a fault-tolerant backplane for large systems; PVFS, a high-performance parallel file system; and Cobalt, a component-based job scheduler and resource manager.

The MCS Division has a vigorous research program in applied mathematics and computer science. In addition to the Blue Gene system, the computational environment includes several other large Linux clusters, a distributed systems laboratory, and a virtual environments laboratory. Argonne is located in the southwestern suburbs of Chicago, offering the advantages of affordable housing, good schools, and easy access to the cultural attractions of the city.

Candidates should submit an application via the Argonne website under division postdoctoral job openings for job requisition mcs-314148. The application must include a curriculum vitae; list of publications, abstracts, and significant presentations; and the names of three references, other than Argonne staff, who can attest to the candidate's ability and potential.

For further information about the Argonne division postdoctoral appointments, see the website. Questions can be addressed to Dr. Giselle Sandi in the Division of Educational Programs, by e-mail to gsandi@anl.gov.

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