

**Postdoctoral or Post-Master's Research Associates in  
Computer Science Research Group**

**Computer Science and Mathematics Division  
Computer and Computational Sciences Directorate  
Oak Ridge National Laboratory  
Oak Ridge, Tennessee**

ORNL08-98-CSM

**Project Description:**

The Oak Ridge National Laboratory invites applications for Postdoctoral and Post-Masters term appointments in the Computer Science Research Group of the Computer Science and Mathematics Division. Opportunities are anticipated in several of the group's projects, in both research and software development roles, and more than one appointment may be considered.

The Group's research covers a broad spectrum of areas associated with high-performance parallel and distributed computing and interacts strongly with large-scale applications in several scientific fields, including computational biology, plasma physics, computational chemistry, and climate modeling. Areas of interest include, but are not limited to:

- Operating systems
- Compilers
- Computer architectures
- Component middleware for HPC
- Software testing infrastructures
- Deployment and maintenance of distributed/grid software environments
- Interface contracts, design by contract methodologies
- Fault tolerance for systems- and application-level software, and algorithms
- Virtualization techniques, hypervisors, and virtual environments
- Reliability, availability, and serviceability of HPC systems; monitoring and modeling
- Accelerators (e.g. FPGA, GPGPU) for scientific applications (especially computational biology)
- HPC I/O architectures
- Parallel programming models and languages

Successful candidates will have a proven track record in one or more of the areas of interest, excellent communication skills, and the ability to work as part of a team. Experience in high-performance computing would be valuable, and is required for some projects. Demonstrated experience with the development of large, complex software systems would also be beneficial. Applicants should clearly state relevant experience and skills, including level of proficiency, and indicate whether they are seeking a research-oriented or software development position.

**Qualifications: master's and/or Ph.D. degree required**

**For a postdoctoral position**, an earned Ph.D. in computer science, computer engineering or a closely related discipline is required. A successfully defended Ph.D. dissertation is considered acceptable to start the appointment with the expectation that the Ph.D. will be granted at the close of the next academic term of the granting institution.

**For a post-master's position**, an earned master's in computer science, computer engineering or a closely related discipline is required. For this appointment, the master's degree must have been completed and granted by the university at the time of starting the appointment.

Applicants cannot have received the most recent degree more than five years prior to the date of application and must complete all degree requirements before starting their appointment.

**How to Apply:**

Qualified applicants may apply online at [https://www2.ornl.gov/ORNL\\_POST/](https://www2.ornl.gov/ORNL_POST/). All applicants will need to register before they can begin the online application. For complete instructions, on how to apply, please see the instructions at <http://www.ornl.gov/orise/edu/ornl/ornl-pdpm/application.htm>. When applying for this position, please reference the position title and number.

This appointment is offered through the ORNL Postdoctoral Research Associates Program and is administered by Oak Ridge Associated Universities (ORAU). This appointment is open to all qualified U.S. and non-U.S. citizens without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.