

Opportunity Title: Post-Master Research Associate - HPC Programming Models

Opportunity Reference Code: ORNL15-26-HPC

Organization Oak Ridge National Laboratory (ORNL)

Reference Code ORNL15-26-HPC

Description The Extreme Scale Systems Center (ESSC) in the Computing and Computational Sciences Directorate at the Oak Ridge National Laboratory has an opening for Postmaster's Research Associate in the field of HPC Programming Models.

Major Duties/Responsibilities

The successful candidate will carry out research and development in the areas of HPC languages, compilers, runtime or communication middleware, and related tools for high-performance computing. Partitioned Global Address Space (PGAS) programming models are of particular interest. The position will require working closely with the semiconductor industry, collaborating with vendors, other national laboratories, and universities. The successful candidate will contribute to the development of industry standards in the languages and libraries area, and will contribute to the development of near-commercial-strength solutions for the HPC community. Publication of research results in peer-reviewed journals and conference proceedings is expected.

This appointment will initially be for 24 months with a possibility of an extension of up to 12 months. Initial appointments and extensions are subject to performance and availability of funding.

This appointment is offered through the ORNL Postgraduate Research Associates Program and is administered by ORAU through the Oak Ridge Institute for Science and Education (ORISE).

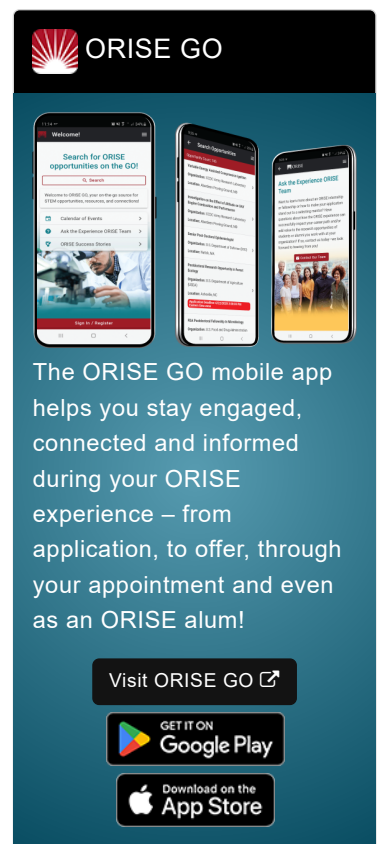
Qualifications Qualifications Required

- A M.S. in computer science, computer engineering, or a closely related field
- Demonstrated research experience in HPC languages, compilers, runtime or communication middleware, and related tools
- Demonstrated ability to implement PGAS programming models including SHMEM, UPC, and CO-Array Fortran
- Background in algorithm design, system programming, and computer architecture
- Strong programming and software development skills
- Experience with parallel computing
- Demonstrated ability to work successfully in interdisciplinary teams, crossing the traditional boundaries of computer science and computational science research
- Demonstrated written and oral communication skills
- Effective interpersonal skills

Eligibility • **Citizenship:** U.S. Citizen Only

Requirements • **Degree:** Master's Degree received within the last 60 month(s).

- **Discipline(s):**
 - **Computer, Information, and Data Sciences** ([16](#))



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- **Engineering** (1 )

Affirmation I certify that I have completed coursework towards a degree in science, technology, engineering, mathematics, or a related field.

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