Post Master's Research Associate in Graphical User Interface and Web Development

Radiation Transport and Criticality Group
Nuclear Science and Technology Division
Energy and Engineering Sciences Directorate
Oak Ridge National Laboratory
Oak Ridge, Tennessee

ORNL09–42–NSTD

Project Description:
The Radiation Transport & Criticality (RTC) Group within the Nuclear Science and Technology Division (NSTD), Energy and Engineering Sciences Directorate, Oak Ridge National Laboratory (ORNL), seeks entry-level, highly-motivated applicants for a post-master's research associate position, with emphasis in the development and maintenance of software to complement and facilitate analyses with existing nuclear analysis programs and development of modern websites to promote the products and capabilities of the RTC group. The group is responsible for the development, enhancement, and maintenance of several key codes and capabilities in the SCALE code system, principally those associated with radiation transport, radiation protection and shielding evaluations, sensitivity/uncertainty analyses, criticality safety analyses, and burnup credit criticality safety analyses, as well as SCALE V&V and computational architecture development. The primary functions of the position are (1) enhancement of existing software packages that provide a mechanism to input data to radiation transport codes, provide visualization of input and output data in multi-dimensional plots, produce three-dimensional rendering of geometry models with overlay of computational results, and perform data interpretation and statistical analysis; (2) development and enhancement of HTML formatted output from nuclear analysis codes written in Fortran; and (3) development of an improved websites through creation of a dynamic infrastructure and interaction with research and development staff members to generate content.

Qualifications:
Candidates must have completed a M.S. in computer science, nuclear engineering, physics or a related field, and should have expertise in Java, Visual C++, Fortran, HTML, Javascript, XML, Perl, or other relevant languages. Experience in or an understanding of computational nuclear engineering is desirable, but the desire to gain understanding of nuclear analysis and data is essential. The candidate must have demonstrated problem-solving skills and a willingness to apply those skills to a variety of problems. The candidate will participate as a member of a collaborative software development team and must possess the associated interpersonal and communication skills.

U.S. citizenship is not required; however, it is desirable that the candidate either holds or is able to obtain a Department of Energy security clearance. Salary will be determined according to the educational, research skills, and experience of qualified candidates.

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.

Technical Questions:
Contact Brad Rearden at (reardenb@ornl.gov). Please reference the position title and number when corresponding about this position.

How to Apply:
Qualified applicants must apply online at https://www2.orau.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.orau.gov/orise/edu/ornl/ornl-pdpm/application.htm. When applying for this position, please reference the position title and number.

The postdoctoral position will be offered through the Oak Ridge Institute for Science and Education (ORISE) Oak Ridge National Laboratory Postdoctoral Research Associates program http://www.orau.gov.orise.edu.ornl.ornl-pd/ornlpdoc.htm. These positions is open to all qualified candidates without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.