

Opportunity Title: ORNL Software Developer/Engineer Post-Bachelor's Research Associate

Opportunity Reference Code: ORNL20-24-ESD

Organization Oak Ridge National Laboratory (ORNL)

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Description Oak Ridge National Laboratory (ORNL) is the largest U.S. Department of Energy (DOE) science and energy laboratory, conducting basic and applied research to deliver transformative solutions to compelling problems in energy, environment, and security.

The Environmental Sciences Division (ESD) at ORNL is seeking candidates for a Post-Bachelor's Research Associate to join its Environmental Data Science and Systems Group (<http://www.esd.ornl.gov/edss/>). The successful candidate will help link advanced informatics and computer science to data management and distribution in the Earth, climate, and environmental sciences. The successful candidate will be involved with various software development and applied data management activities that support projects in Earth Science Informatics at ORNL, such as the Atmospheric Radiation Measurement (ARM), U.S. Geological Survey (USGS), and other DOE and non-DOE projects.

Major Duties and Responsibilities:

- Writing web-based application software, including designing server systems capable of querying a database of findings and summarizing findings in various formats, including but not limited to developing Representational State Transfer (REST) Application Programming Interfaces (APIs) in Java and Python.
- Designing and developing automation scripts to ensure the software works as expected.
- Writing frontend web-application in the latest JavaScript frameworks such as Vue, to dynamically display information.
- Collaborating closely with other team members and departments.
- Executing all levels of testing (System, Integration, and Regression).
- Using a database including querying large data tables or designing new schemas.

The position appointment is for one year, with an optional one year extension possible (two year maximum), depending on performance, mutual interest, and available funding.

Qualifications Candidates should have completed a bachelor's degree in computer science, electrical engineering, or a related discipline, with a strong background in software development and an interest software development, databases, and infrastructure.

Preferred Skills:

- Must be a self-starter, willing to develop expertise in data preparation for archiving, discovery and distribution, as well as, metadata preparation and management.
- Some knowledge in one or more earth sciences is advantageous.
- Experience in one or more programming languages such as Java,



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Associate




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JavaScript, Python, PHP, C, R, MatLab, SAS, IDL, and/or Unix/Shell.

- One to two years of experience as a Software Developer, Tester, or a similar role.
- Desire to gain expertise with databases such as PostGreSQL, MySQL, Oracle, or SQLServer.
- Application development knowledge using current tools and technologies.
- Strong background in informatics or computer programming as applied to some type of business, engineering, or scientific application.
- Working experience in Linux (preferred) and/or Windows servers.
- Excellent communication skills in English, both written and oral. Communication skills are necessary for gathering and interpreting scientific and research users' requirements.
- Desire and willingness to learn and adopt new tools and technologies that are required by the project and that support fast-paced technological advancements.

Living in East Tennessee: While the opportunity to work at ORNL is an amazing experience in itself, it's easy to overlook everything else East Tennessee has to offer if you haven't had the opportunity to spend time here. From spending your weekends downtown at Knoxville's farmers market, the Rhythm n' Blooms Music Festival, or the Dogwood Arts Festival, to some of the best hiking, kayaking, and camping in the U.S., East Tennessee has something to offer everyone.

The ORNL Post-Bachelor's Research Associate Program is administered by Oak Ridge Associated Universities through its contract with DOE to manage the Oak Ridge Institute for Science and Education (ORISE).

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| Eligibility Requirements | <ul style="list-style-type: none">• Degree: Bachelor's Degree received within the last 36 month(s).• Academic Level(s): Post-Bachelor's.• Discipline(s):<ul style="list-style-type: none">◦ Computer, Information, and Data Sciences (16 )◦ Engineering (2 )◦ Environmental and Marine Sciences (2 )• Age: Must be 18 years of age |
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