

Opportunity Title: ORNL Additive Manufacturing Large Scale Metal Post-Bachelor's Research Associate

Opportunity Reference Code: ORNL20-37-ETSD

Organization Oak Ridge National Laboratory (ORNL)

Reference Code ORNL20-37-ETSD

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 candidate will research and develop various additive manufacturing (AM) metal robotics systems. Specifically, he or she will help develop new improved ways for high-rate metal deposition, including experimentation, process development, and system monitoring. In addition, the candidate will become very familiar with mBAAM (metal Big Area Additive Manufacturing) and perform extensive research. He or she will interact with our corporate partners and industry leaders to help design and develop new generations of mBAAMs. He or she will also work on creating tool-paths based on computer-aided design (CAD) models and verifying it via printing. Lastly, some research will involve robotic software script programming for various calibration exercises.

Qualifications Candidates should have recently completed a bachelor's degree in mechanical engineering or electrical engineering.

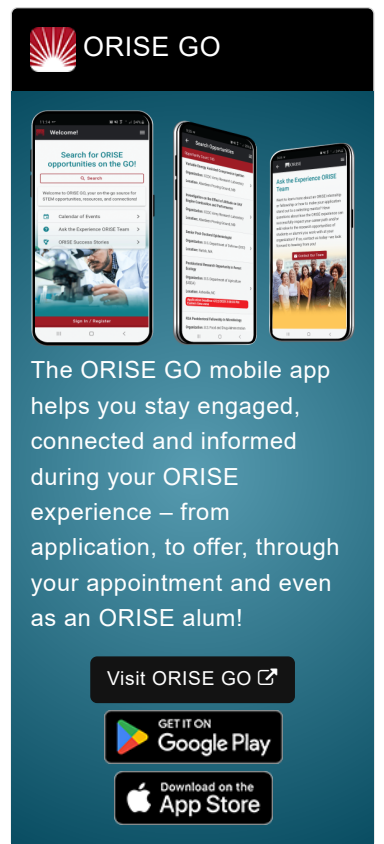
Preferred Skills:

- Excellent research and development skills.
- Experience with AM.
- Experience with CAD software, Solidworks, or Fusion360 preferred.
- Experience with path planning for robotics.
- Basic programming skills (C, C++ preferred).
- Strong interpersonal skills.
- Independent motivation.
- Experience working in teams on projects.

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).

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Bachelor's Degree received within the last 36 month(s).
 - **Discipline(s):**



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- **Computer, Information, and Data Sciences** ([2](#) 👁)
- **Engineering** ([3](#) 👁)
- **Mathematics and Statistics** ([1](#) 👁)
- **Other Non-Science & Engineering** ([1](#) 👁)
- **Age:** Must be 18 years of age

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