

Opportunity Title: ORNL Infrastructure Modeling and Climate Impacts Post

Bachelor Research Associate

Opportunity Reference Code: ORNL16-54-CSED

Organization Oak Ridge National Laboratory (ORNL)

Reference Code ORNL16-54-CSED

Description The Geographic Information Science and Technology (GIST) Group at the Computational Sciences and Engineering Division (CSED) is looking for Post Bachelor Research Associates to support spatial research initiatives with special emphasis in infrastructure modeling and analysis techniques to support critical infrastructure monitoring and situation awareness, decision analysis for humanitarian emergencies and risk, and predictive analytics for complex systems. The work will include imagery/data collection, data mining to inform intelligent decisions, pattern recognition to ascertain model accuracy, and verification and validation of outputs. This position would be in support of our Critical Infrastructure and Climate Impacts initiatives to develop data-driven approaches for real-time monitorability of critical infrastructure assets and operations in order to achieve an unprecedented level of situation awareness and controllability over its services. Potential opportunities and guidance for publications and presentations of research in professional journals and to the scientific community will be available and we strongly encourage participation. Appointments typically range from three months to one year subject to renewal upon availability and job performance.

## **Qualifications** REQUIRED:

- Experience with GIS principles and analytical techniques, data management, and visualization.
- Experience with commercial GIS (ESRI products including ArcInfo, ArcView, ArcGIS, ArcGIS-Online) is required.
- · Excellent communication (oral and writing), organization, and decisionmaking skills. Strong interpersonal skills and working effectively as a team member are essential.

## PREFERRED:

· Experience with geospatial analysis and webGIS is desired but not required.

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

This ORNL Postgraduate Research Associates Program is administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education (ORISE).

## Eligibility

- **Degree:** Bachelor's Degree received within the last 36 month(s).
- Requirements Discipline(s):
  - Computer, Information, and Data Sciences (16 ●)
  - Earth and Geosciences (21 )



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- ∘ Environmental and Marine Sciences (2\_●)
- Social and Behavioral Sciences (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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