Opportunity Title: EPA Fellowship on Satellite Water Quality Validation and Applications
Opportunity Reference Code: EPA-ORD-CEMM-WECD-2023-01

Organization U.S. Environmental Protection Agency (EPA)

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How to Apply

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the Apple or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. All transcripts must be in English or include an official English translation. Click here for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations. Click here for detailed information about recommendations.

All documents must be in English or include an official English translation.

Application Deadline 9/29/2023 3:00:00 PM Eastern Time Zone

Description

***Applications may be reviewed on a rolling-basis and this posting could close before the deadline.** Click **here** for information about the selection process.

EPA Office/Lab and Location: A research training opportunity is available at the U.S. Environmental Protection Agency (EPA), Office of Research and Development (ORD), Center for Environmental Measurement & Modeling (CEMM), Watershed & Ecosystem Characterization Division (WECD) located in Durham, North Carolina.

Research Project: Data from satellite remote sensing can address and inform communities on water quality changes that impact societal uses, such as consumption and recreation. This research project explores issues relevant to understanding the general utility of satellite data for water quality monitoring.

This research project develops scientific approaches for mainstreaming satellite water quality capabilities into U.S. fresh and estuarine water quality management decisions. Please visit www.epa.gov/cyanoproject for details. This research project is on the cutting edge of water quality monitoring and applied satellite operations. The research participant will be involved in geospatial data, computer coding, and field based optical measures for validation.

Learning Objectives: The research participant will have the opportunity to interact with multiple federal agencies and academic universities involved in a broader research effort

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addressing various issues related to satellite water quality research for inland waters and estuaries. The participant will have the opportunity to gain experience using data and tools developed by multiple federal agencies and academic institutions. The research participant will also have an opportunity to gain experience in problem formulation, data analysis and interpretation, programming, and technical communication. The research participant will be encouraged to participate in manuscripts and presentations based on their experience and comfort level.

Research training activities may include:

1. Assisting with the development and validation of a national Sentinel-2 chlorophyll data product in lakes and estuaries.
2. Demonstrating new satellite applications for water quality monitoring.
3. Opportunities to contribute to other research efforts related to water quality satellite remote sensing, such as seagrass monitoring, field and laboratory efforts for satellite validation.

Mentor(s): The mentor for this opportunity is Blake Schaeffer (schaeffer.blake@epa.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: September 1, 2023. All start dates are flexible and vary depending on numerous factors. Click **here** for detailed information about start dates.

Appointment Length: The appointment will initially be for one year and may be renewed upon EPA recommendation and subject to availability of funding.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience. Click **here** for detailed information about full-time stipends.

EPA Security Clearance: Completion of a successful background investigation by the Office of Personnel Management (OPM) is required for an applicant to be on-boarded at EPA.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and EPA. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

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ORISE offers all ORISE EPA graduate students and Postdocs a free 5 year membership to the National Postdoctoral Association (NPA).

The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility, including but not limited to, COVID-19 requirements (e.g. facial covering, physical distancing, testing, vaccination).

Questions: Please see the FAQ section of our website. After reading, if you have additional questions about the application process please email ORISE.EPA.ORD@orau.org and include the reference code for this opportunity.

Qualifications

The qualified candidate should have received a master's degree in one of the relevant fields, or be currently pursuing the degree with completion before the appointment start date. Degree must have been received within five years of the appointment start date.

Preferred skills:

- Knowledge and experience in a computer coding language such as Python or R (similar languages are ok) with a good working knowledge of GIS.
- It is beneficial to have a good statistical skill set.
- Relevant ecology or similar background is beneficial, but not necessary.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree received within the last 60 months or currently pursuing.
- **Academic Level(s):** Graduate Students or Post-Master's.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Communications and Graphics Design** (6 👁)
  - **Computer, Information, and Data Sciences** (17 👁)
  - **Earth and Geosciences** (21 👁)
  - **Engineering** (27 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (48 👁)
  - **Mathematics and Statistics** (11 👁)
  - **Other Non-Science & Engineering** (2 👁)
  - **Physics** (16 👁)
  - **Social and Behavioral Sciences** (29 👁)