Opportunity Title: GLIMPSE Decision Support Software for Air Quality Management
Opportunity Reference Code: EPA-ORD-NERL-SED-2019-12

Organization	U.S. Environmental Protection Agency (EPA)
Reference Code	EPA-ORD-NERL-SED-2019-12

How to Apply

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

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

If you have questions, send an email to EPArpp@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline 1/21/2020 3:00:00 PM Eastern Time Zone

Description

***Applications will be reviewed on a rolling-basis.**

A research opportunity is available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), National Exposure Research Laboratory (NERL), Systems Exposure Division (SED) located in Research Triangle Park, North Carolina.

The objective of this project is to integrate the U.S. version of the Global Change Assessment Model (GCAM-USA) into the GLIMPSE decision support system, facilitating its use for long-term air quality and climate planning. GLIMPSE will provide Agency- and state-level analysts with levers for manipulating GCAM-USA inputs to simulate the application of air pollutant emission controls, as well as energy efficiency and renewable energy measures. GLIMPSE will provide visualization tools for exploring model outputs, including emissions and projected impacts, and its design will support an iterative and interactive management strategy exploration process.

Under the guidance of a mentor, the research participant may further the development of the Java-based GLIMPSE air quality management decision support software, including improving software engineering and adding features to address user needs. The GLIMPSE prototype was developed rapidly, with the goal of evaluating design and functionality options. A next step in the research project is to improve the software engineering and maintainability of the existing code, as well as update the software's documentation, robustness, and portability. Also, we are in the process of identifying new “policy levers” to include in GLIMPSE. The research participant will help integrate these new levers into the GLIMPSE graphical user interface.

The research participant will become a member of the multidisciplinary GLIMPSE

Opportunity Title: GLIMPSE Decision Support Software for Air Quality Management
Opportunity Reference Code: EPA-ORD-NERL-SED-2019-12

research team and interact with EPA scientists and regulatory staff. Researcha activities may include: (i) applying best practice software engineering and software development approaches to improve GLIMPSE, (ii) collaborating with EPA staff to identify and implement those features into the GLIMPSE graphical user interface. The research participant will also learn about the GCAM-USA human-earth systems model and will become proficient in its application in climate and air quality management. Furthermore, the research participant will learn software development skills, including the design and implementation of decision support systems and graphical user interfaces. The research participant will also have the opportunity to communicate progress and findings to a diverse scientific and technical audience.

Anticipated Appointment Start Date: November 1, 2019

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. The initial appointment is for one year, but may be renewed upon recommendation of EPA and is contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time at EPA in the Research Triangle Park, North Carolina, area. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits.

Completion of a successful background investigation by the Office of Personnel Management (OPM) is required for an applicant to be on-boarded at EPA. OPM can complete a background investigation only for individuals, including non-US Citizens, who have resided in the US for the past three years.

Qualifications

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

Preferred skills:

- Experience programming with Java or a similar object-oriented language
- Experience with graphical interface design

Eligibility Requirements

- **Degree:** Bachelor's Degree or Master's Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Computer, Information, and Data Sciences** (16 👁)
  - **Earth and Geosciences** (21 👁)
  - **Engineering** (27 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (45 👁)
  - **Mathematics and Statistics** (10 👁)
  - **Other Non-Science & Engineering** (2 👁)
  - **Physics** (16 👁)
  - **Science & Engineering-related** (1 👁)
  - **Social and Behavioral Sciences** (28 👁)

Opportunity Title: GLIMPSE Decision Support Software for Air Quality Management
Opportunity Reference Code: EPA-ORD-NERL-SED-2019-12

Affirmation I certify that I have lived in the United States for the past three years.