

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-SSP-0010-2

- **How to Apply** Submit application and supporting documents by clicking on Apply Now button.
 - For more information, contact <u>EPAjobs@orau.org</u>. Do not contact EPA directly.
 - **Description** The EPA Environmental Research and Business Support Program has an immediate opening for an Android Mobile Applications Developer with the Office of Research and Development at the EPA facility in Athens, GA.

The Office of Research and Development at the EPA supports high-quality research to improve the scientific basis for decisions on national environmental issues and help EPA achieve its environmental goals. Research is conducted in a broad range of environmental areas by scientists in EPA laboratories and at universities across the country.

ORD supports six research programs that identify the most pressing environmental health research needs with input from EPA offices, partners and stakeholders. Strategic Research Action Plans outline the research under way in the programs. The research is conducted by ORD's three national laboratories, four national centers, and two offices located in 14 facilities across the country and in Washington, DC.

EPA's National Exposure Research Laboratory (NERL) protects human health and the environment by developing and applying innovations in exposure science. NERL provides scientific leadership, understanding, and tools necessary to quantify exposure for humans and ecosystems. NERL's structure is anchored by three science divisions, Computational Exposure Division (CED), Exposure Methods & Measurements Division (EMMD), and Systems Exposure Division (SED).

EPA's Computational Exposure Division (CED) develops & evaluates data, decision support tools & models to be applied to media-specific or receptor-specific problem areas. Scientists use modeling-based approaches to characterize exposures, evaluate fate & transport, & support environmental diagnostics/forensics with input from multiple data sources.

CED scientists: Develop modeling tools needed to support implementation of the Clean Air, Clean Water, Safe Drinking Water, & Endangered Species Acts; Evaluate the accuracy & reliability of modeling tools that characterize changes in meteorology, air quality, pollutant deposition, and watershed biogeochemistry, as well as ecological and human exposures in response to changes in land use and climate change; Support environmental diagnostics & forensics with input from multiple data sources; Develop receptor-specific models, process models & decision support tools; and Develop, apply & evaluate models that estimate human exposure to environmental contaminants & the resulting internal dose.

The Watershed Exposure Branch (WEB), headed by a Branch Chief

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> reporting to the Computational Exposure Division Director, develops, applies, and evaluates watersheds, landscape, and process models to assess the fate and transport of stressors in ecosystems and spatially explicit exposures to key receptors. The branch's modeling efforts are highly targeted to environmental exposures generally at the watershed and basin scale.

The mission of the Cyanobacteria Assessment Network project (CyAN): Support the environmental management and public use of U.S. lakes and estuaries by providing a capability of detecting and quantifying harmful algal blooms (HABs) and related water quality using satellite data records to achieve the following objectives:

• Create a standard and uniform approach for early identification of algal blooms that is useful and accessible to stakeholders of freshwater systems using the new set of satellites: Ocean Land Colour Instrument (OLCI) on Sentinel-3, Sentinel-2, Landsat and future NASA missions;

• Develop an information dissemination system for expedient public health advisory postings;

• Better understand the connections between health, economic and environmental conditions to cyanobacteria and phytoplankton blooms.

The selected candidate will provide support for the CyAN project by enhancing and maintaining an existing Android mobile software application that disseminates satellite derived HAB occurrences for the continental United States.

Support responsibilities shall include:

- Writing Java code to correct and/or enhance application functionality, and
- Preparing distribution packages (APKs) for the mobile application by compiling/packaging code for supported versions of Android.

Secondary duties (optional based on aptitude/interest/desire/time) include providing support for mobile application backend functionality by:

- Maintaining Python/Django based web site and configuring in EPA server and/or cloud environments.
- Administering and maintaining MySQL database,
- Configuring and maintaining Apache/Tomcat server in a Redhat Linux OS environment, and
- Maintaining and enhancing Java code for application services utilized in the phone application.

HAB information dissemination duties will include:

- Developing, deploying, and maintaining Android mobile application using agile software methodology, and
- Participating in an agile software development team to design, implement, and maintain and enhance an Android mobile application



disseminating occurrences of HABs to CyAN program stakeholders and the IT infrastructure supporting the application.

Communications-related responsibilities will include:

- Participating as a member of a multi-disciplinary research team,
- Interacting with other members of the development team as well as EPA scientists,
- Documenting code and database development efforts, and
- Participating if asked to present work performed as a poster at a scientific conference.

Location: This job will be located at EPA's facility in Athens, GA.

Salary: Selected applicant will become temporary employees of ORAU and will receive an hourly wage of \$19.74 for hours worked.

Travel: Occasional overnight travel may be required.

Expected Start Date: The position is full time and expected to begin June 2016. The selected applicant will be temporary employees of ORAU working as contractors to EPA. The initial contract period is through May 14, 2017. EPA may elect to renew the contract for an additional three 12-month optional periods.

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Qualifications Eligible applicant must:

- Be at least 18 years of age and
- Have earned a Bachelor's degree in computer science, information science, statistics, math, physics, chemistry, computational biology, biology, toxicology, bioinformatics or a closely related field of study from an accredited university or college within the last 24 months **and**
- Be a citizen of the United States of America or a Legal Permanent Resident.

EPA ORD employees, their spouses, and children are not eligible to participate in this program.

Required Knowledge, Skills, Work Experience, and Education:

The applicant shall have:

- Demonstrated education and/or experience in software development of mobile and web based applications,
- Demonstrated working knowledge of Android mobile application development software tools and the technology stack necessary to support mobile software applications, and
- Demonstrated strong written, oral and electronic communication skills.

Desired Knowledge, Skills and Work Experience:

It is desirable for applicant to have demonstrated working knowledge of



software version control systems and agile software development methodologies, e.g., Git/GitHub.

- Eligibility Requirements
- Citizenship: LPR or U.S. Citizen
 - Degree: Bachelor's Degree or Master's Degree received within the last 24 month(s).
 - Discipline(s):
 - Chemistry and Materials Sciences (<u>12</u>)
 - Computer, Information, and Data Sciences (16)
 - Environmental and Marine Sciences (1. .
 - Life Health and Medical Sciences (45 (19)
 - Mathematics and Statistics (<u>10</u>)
 - Physics (<u>16</u> 𝔹)
 - Affirmation I certify that I am at least 18 years of age; a recent graduate with a Bachelor's degree in computer science, information science, statistics, math, physics, chemistry, computational biology, biology, toxicology, bioinformatics or a closely related field of study from an accredited university or college within the last 24 months; a citizen or a Legal Permanent Resident of the United States of America; and not a current employee of EPA ORD or the spouse or child of an EPA ORD employee.

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