

**Opportunity Title:** EPA Web Developer

**Opportunity Reference Code:** EPA-SSP-0007-5

**Organization** U.S. Environmental Protection Agency (EPA)

**Reference Code** EPA-SSP-0007-5

**How to Apply** Submit application and supporting documents by clicking on Apply Now button.

*For more information, contact [EPAjobs@orau.org](mailto:EPAjobs@orau.org). Do not contact EPA directly.*

## Description

### Background:

The EPA Environmental Research and Business Support Program has an immediate opening for an EPA Web Developer with the Office of Research and Development at the EPA facility in Arlington, VA.

The Office of Research and Development at the EPA supports 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.

The National Center for Environment Assessment is coordinating with the Cardiopulmonary and Immunotoxicology Branch (CIB) of the Environmental Public Health Division (EPHD) in the National Health Exposure Effects research Laboratory (NHEERL). The underlining mission of these two offices is to provide state-of-art science that will protect human health and the environment with the use of the latest web technology and mobile devices.

The candidate shall work on two main web-related projects: 1) a mobile application development project, and 2) an interactive diagramming tool/database project. Because of the different technology EPA will be requiring for each project and the intended outcome, the roles are described separately below.

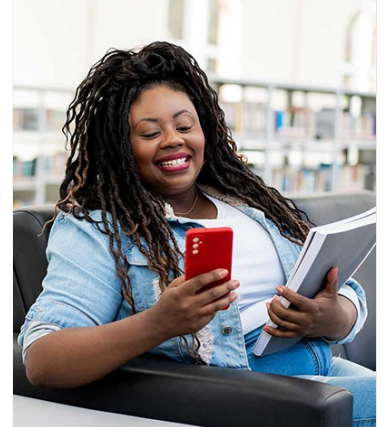
### Project 1: Mobile Application Development Project

On this project, the candidate shall assist in building an end-user application to input repetitive data into a mobile device. The application will need to have authentication/registration for each end-user for integrity and consistency of data and the candidate will be asked to help develop training materials and help with the production of sampling kits.


Once enough data is collected, the candidate shall assist in building an interface (using EPA's Geoplatform and Open Source data visualization tools (such as High Charts and D3)) to generate tabular and graphic reports showing the results of the collected data. This shall be publically available so public participants can see the results of the study/application.



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## **Project 2: Interactive Diagramming Tool/Database Project**

The candidate shall assist in migrating an existing website (a flash-based tool listed under the CADDIS website at [https://www3.epa.gov/caddis/cd\\_icds\\_intro.html](https://www3.epa.gov/caddis/cd_icds_intro.html)) to an html 5 compatible technology. The final product shall be supported by the EPA architecture and provide a conceptual diagram that links to the database. Currently, the website uses a conceptual diagram to illustrate hypothesized pathways (flow- diagrams) to help risk decision-makers. The site also includes a method to link these diagrams to the underlying research references stored in the CADDIS Literature (CADLit) database.

The candidate shall assist in building a tool similar to today's tool, but using the latest web-technology so that ICD users will be able to 1) collaboratively create and save conceptual model diagrams; 2) search the database for relevant supporting references from the diagramming tool; 3) enter their own supporting references to the database; 4) link references to the diagrams they create or collaborate on; and 5) view diagrams and supporting literature created by other users. The web application must be able to save this diagram and database information and provide it when the end-users re-enter the application.

Additional responsibilities for both projects shall include assisting with the following:

- Developing application code for these projects.
  - Assisting with the design and development of the mobile application and interactive decision support tool described above. The candidate shall work with the mentor throughout the process – requirements gathering, designing, building, deploying, testing, release to production and developing end-user support.
  - Working with the mentor to build an interface with a focus on usability/accessibility (508 compliance)
  - Researching and incorporate up-to-date solutions with the latest industry trends in mobile technology and interactive diagramming
  - Explaining technologies and solutions to technical and non-technical users
- Building web application components including a label generation application and mapping/data visualization application
- Providing web application components for authenticating users and saving interactive decision support result maps.
- Providing written materials for presentations, user training or code documentation.

**Location:** This job will be located at EPA's facility in Arlington, VA.

**Salary:** The selected applicant will become a full time temporary employee of ORAU and will receive an hourly wage of \$21.80 for hours worked.

**Travel:** Overnight travel may be required.

**Working Conditions:** This position will involve work in an administrative

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setting and is not expected to involve exposure to hazardous elements.

The selected candidate shall be supervised by a mentor who will provide day-to-day direction, as well as coach, advise and counsel the selected candidate, and review his/her work.

**Expected Start Date:** The position start date is December 2016. The selected applicant will be temporary employees of ORAU working as a contractor to EPA. The initial contract period is through May 14, 2017. EPA may elect to renew the contract for an additional one 12-month optional period.

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**Qualifications Eligible applicants must:**

- Be at least 18 years of age **and**
- Have earned at least a bachelor's degree in Computer Science, Information Management, Web Design or a related field 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**

Successful candidates will have:

- A working knowledge of information architecture, web design and usability design principles
- A working knowledge of relational databases using MySQL and Oracle, analytic data and user interaction data-entry screens
- A working knowledge of code documentation practices using GitHub
- Strong programming skills with object oriented programming, HTML5, JavaScript, jQuery, JSON, Ajax and PHP.
- Multi-tasking and good time management skills experience
- Strong written, oral and electronic communication skills

**Desired Knowledge, Skills, Work Experience, and Education**

It is desired, but not required, that the candidate have experience developing software for mobile devices.

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|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eligibility Requirements</b> | <ul style="list-style-type: none"><li>• <b>Citizenship:</b> LPR or U.S. Citizen</li><li>• <b>Degree:</b> Bachelor's Degree or Master's Degree received within the last 24 month(s).</li><li>• <b>Discipline(s):</b><ul style="list-style-type: none"><li>◦ <b>Computer, Information, and Data Sciences</b> (<a href="#">16</a> )</li></ul></li></ul> |
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◦ **Engineering** ([1](#) )

**Affirmation** I certify that I am at least 18 years of age; have earned at least a bachelor's degree in Computer Science, Information Management, Web Design or a related field of study or am a recent college graduate within the last 24 months from an accredited university or college; 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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