

Opportunity Title: EPA Scientific Application and Database Developer

Opportunity Reference Code: EPA-SSP-0012-7R

Organization U.S. Environmental Protection Agency (EPA)

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Description The EPA Environmental Research and Business Support Program has an immediate opening for an EPA Scientific Application and Database Developer with the Office of Research and Development at the EPA Research Triangle Park facility in Raleigh- Durham, NC.


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.


The National Center for Computational Toxicology (NCCT) is responsible for developing computational tools and solutions for improving environmental risk assessments and regulatory decisions pertaining to chemical safety and sustainability. The NCCT ToxCast and Tox21 projects are testing thousands of chemicals in a wide range of state-of-the-art high-throughput biological assays, with the goal of building computational models for predicting toxicity. Supporting this effort are various databases tracking massive amounts of information related to bioassay outputs, chemical structures and identifiers, and detailed tracking of the chemical samples undergoing testing. The team is seeking one individual, at least 18 years of age who have completed a Master's degree, preferably in chemistry, computer science/engineering, bioinformatics, biology, statistics, computational biology, math, physics, information science, or a related field of study, to provide application development and programming support for NCCT's ToxCast data analysis pipeline.

The selected applicant shall provide application development and programming support for NCCT's in vitro data analysis pipeline. This is a combination of a MySQL database and an R-language package. The applicant will work with other members of NCCT's team to maintain this system, add new functionality as requested by NCCT staff, process specific data sets through the pipeline, and add documentation as needed. The applicant will be a member of a multi-disciplinary research team and will be trained to support the development, programming, testing and maintenance of multiple applications requiring access to chemical and biology databases that provides a foundation for all of NCCT's programs.

Application Programming responsibilities will include:



- Maintaining the database (MySQL) and pipeline (R code), e.g. finding and fixing bugs, adding requested functionality,
- Processing specified data sets (ToxCast data) through the


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- pipeline,
- Adding documentation as requested,
- Developing and maintaining data export scripts as requested,
- Developing scripts to provide reports on the data,
- Working with users to provide advice on using the pipeline code and database, and
- Developing new automated tests for application code.

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, and
- Documenting code and database development efforts.

The selected applicant may be asked to present work performed at a scientific conference.

Location: This job will be located at EPA's Research Triangle facility in Raleigh-Durham, NC.

Salary: Selected applicants will become temporary employees of ORAU and will receive an hourly wage of \$27.72 for hours worked.

Travel: Occasional overnight travel may be required.

Expected Start Date: This position is full-time and expected to begin in July 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 three 12-month optional periods.

For more information, contact EPAjobs@orau.org.

Qualifications Eligible applicants must:

- Be at least 18 years of age and
- Have earned at least a Master's degree, preferably in chemistry, computer science/engineering, bioinformatics, biology, statistics, computational biology, math, physics, information science, or a 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

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The applicant shall:

- Have demonstrated education and/or experience in both R-language code development and MySQL development and use,
- Have working knowledge of in vitro assays and the data that these assays generate,
- Have working knowledge of genes and gene annotation approaches,
- Have demonstrated leadership skills and have experience working in teams, and
- Have strong written, oral and electronic communication skills.

Desired Expertise, Skills, Education, and/or Experience

It is desirable for the applicant to possess:








- Proficiency with Microsoft Office applications (i.e., Excel, PowerPoint, Word, Outlook), desktop publishing, and the Internet,
- Experience with Linux operating system,
- Experience with R-language programming,
- Experience with MySQL database development and application programming, and
- Bioinformatics skills including knowledge of genes and gene annotation and in vitro assay technologies.

How to apply:

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

For more information, contact EPAjobs@ornl.gov.

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Master's Degree or Doctoral Degree received within the last 24 month(s).
- **Overall GPA:** 2.00
- **Discipline(s):**
 - **Chemistry and Materials Sciences** (12 )
 - **Computer, Information, and Data Sciences** (16 )
 - **Engineering** (3 )
 - **Environmental and Marine Sciences** (1 )
 - **Life Health and Medical Sciences** (45 )
 - **Mathematics and Statistics** (10 )
 - **Physics** (16 )

Affirmation

I certify that I am at least 18 years of age; a recent graduate with at least a Master's degree, preferably in chemistry, computer science/engineering, bioinformatics, biology, statistics, computational biology, math, physics, information science, or a related field of study; a citizen or a Legal Permanent Resident of

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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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