

**Opportunity Title:** Modeling and Software Tools Developer at EPA

**Opportunity Reference Code:** EPA-SSP-0010-5R-11-29-16

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

**Reference Code** EPA-SSP-0010-5R-11-29-16

**Description** The EPA Environmental Research and Business Support Program has an immediate opening for a Modeling and Software Tools 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.

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 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.

The selected candidate shall support the Life Cycle-Human Exposure Model (LC-HEM) project (<http://pubs.acs.org/doi/pdf/10.1021/acs.est.6b02277>). This project is developing software tools such as the Human Exposure Model (HEM) to assess exposures to chemicals from the use of consumer products. He/she shall assist with developing data sets and decision rules for various modules of HEM and assist in the programming of HEM itself. He/she shall be technically-minded, with general experience in science, public health, or engineering disciplines, and quantitative skills such as regression modeling and basic statistics. A general understanding of technology and a willingness to learn new skills are essential. Position shall include on-the-job training in subject matter expertise and computer programming.

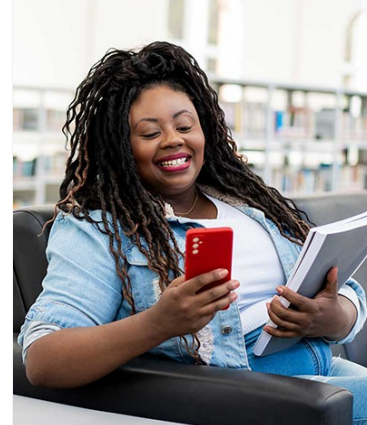
**Duties include but are not limited to:**

- Collecting, curating, and organizing data (e.g. in databases) on exposure related factors and habits and practices related to use of consumer products.
- Assisting in the developing and programming of scientific modules to be part of the HEM (e.g. modeling occupational exposure to chemicals, end-of-product-life exposures, etc.). This could also include developing user tools, such as a graphical user interface (GUI) for the HEM interface.
- Assisting in a team effort to convert individual modules into web services.

**Communications-related responsibilities will include:**



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- 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.

The selected candidate may be asked to present work performed as a poster at a scientific conference.

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

**Salary:** The selected applicant will become a full time temporary employee of ORAU and will receive an hourly wage of \$27.72 for hours worked.

**Hours:** Full-Time

**Travel:** Occasional overnight travel may be required.

**Working Conditions:** The selected candidate shall be supervised by a mentor who will provide day-to-day direction, as well as coach, advise and counsel the candidate, and review the candidate's work.

This position will involve work in an administrative setting and is not expected to involve exposure to hazardous elements.

**Expected Start Date:** The position start date is January 2017. 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.

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

**Qualifications Eligible applicants must:**

- Be at least 18 years of age **and**
- Have earned at least a Master's degree in physics, chemistry, biology, engineering, applied sciences, environmental health, exposure science, computer sciences, information technology, or a related discipline 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 candidate shall possess:**

- Willingness to learn; subject matter expertise and additional technical skills will be taught on-the-job if necessary.
- General understanding of quantitative techniques and some experience with computer programming (experience with the computer languages

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of R or Python is a plus, experience with other languages is acceptable, and the minimum required experience is the use of a programming language for course-work).

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

**It is desirable for the candidate to possess:**

- Experience applying knowledge of exposure assessment and/or computing and mathematical modeling to the assessment of chemical exposures.

**How to apply:**

- Submit application and supporting documents by clicking on *Apply Now* button.
- Do not contact EPA directly.

For more information, contact [EPAjobs@orau.org](mailto:EPAjobs@orau.org).

- Eligibility Requirements**
- **Citizenship:** LPR or U.S. Citizen
  - **Degree:** Master's Degree or Doctoral Degree received within the last 24 month(s).
  - **Discipline(s):**
    - **Chemistry and Materials Sciences** ([12](#) 👁)
    - **Computer, Information, and Data Sciences** ([16](#) 👁)
    - **Earth and Geosciences** ([21](#) 👁)
    - **Engineering** ([1](#) 👁)
    - **Environmental and Marine Sciences** ([14](#) 👁)
    - **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 in physics, chemistry, biology, engineering, applied sciences, environmental health, exposure science, computer sciences, information technology, or a related discipline 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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