Opportunity Title: Air Quality Modeling Scientist
Opportunity Reference Code: EPA-SSP-0010-17-03-30-20

Organization	U.S. Environmental Protection Agency (EPA)
Reference Code	EPA-SSP-0010-17-03-30-20
How to Apply	**Ready to send share your interest with EPA scientists?**

- Submit application and supporting documents by clicking on Apply Now button.
- *For more information, contact* EPAjobs@orau.org. Do not contact EPA directly.
- Check out our website at: http://orau.org/epa/

Description

The EPA National Student Services Contract has an immediate opening for a full-time Air Quality Modeling Scientist with the Office of Research and Development at the EPA facility in Raleigh, 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.
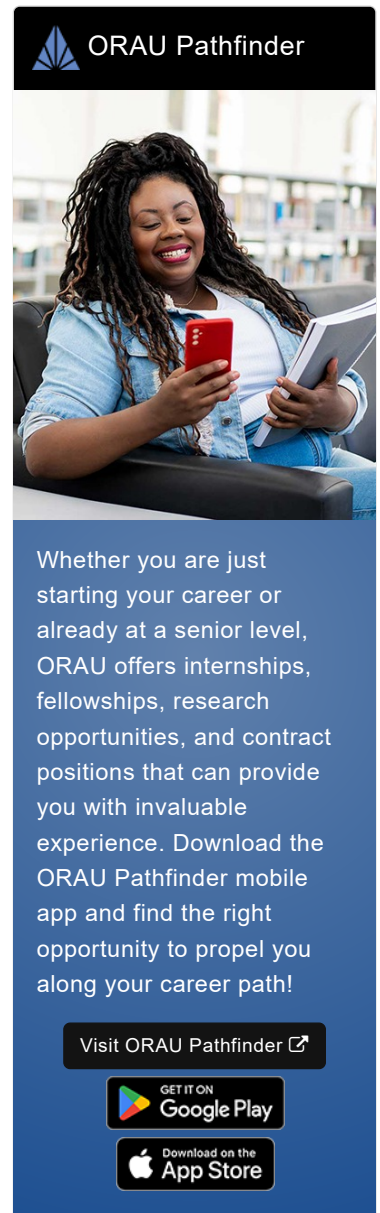
What the EPA project is about

This opportunity is located in ORD's National Exposure Research Laboratory (NERL), Computational Exposure Division (CED), which develops, evaluates and applies models and decision support tools to characterize fate and transport in environmental media and the resulting human and ecosystem exposures. CED is comprised of approximately 70 Federal staff across four branches and an immediate office. CED staff are located in RTP, NC, and Athens, GA.
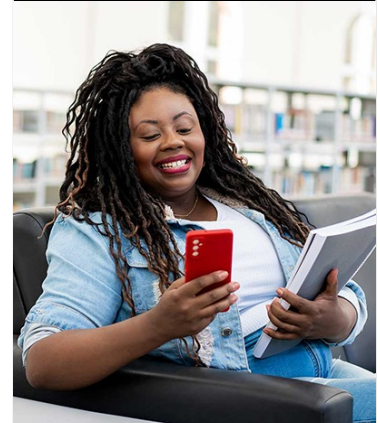
The CED staff consists of atmospheric scientists, meteorologists, hydrologists, exposure scientists, toxicologists, computer scientists and programmers, statisticians and mathematicians. The Division is diverse in scientific expertise and workforce. Researchers within CED participate in all six of the ORD National Research Programs (Air and Energy; Chemical Safety for Sustainability; Homeland Security; Human Health Risk Assessment; Safe and Sustainable Water Resources; and Sustainable and Healthy Communities).

Scientists in NERL's Computation Exposure Division develop and apply large scale comprehensive atmospheric systems to study various aspects of air pollution. The Community Multiscale Air Quality Modeling (CMAQ) system is an active open-source development project of the U.S. EPA that consists of a suite of programs for conducting air quality model simulations. CMAQ combines current knowledge in atmospheric science and air quality modeling, multi-processor computing techniques, and an open-source framework to deliver fast, technically sound estimates of ozone, particulates, toxics and acid deposition.

What experience and skills will you gain?

As a team member, you will gain experience and knowledge by assisting CED staff with various aspects of atmospheric model development, testing, and applications.

Required Knowledge, Skills, Work Experience, and Education

- Experience in coding scientific software and/or computational methods;
- Experience with programming in FORTRAN, Python, or R;
- Experience working with output data sets from atmospheric or environmental models;
- Strong organizational skills with demonstrated ability to handle multiple assignments with competing deadlines;
- Strong written, oral and electronic communication skills; and
- Ability to work independently and proactively.

How you will apply your skills

- Integrating and testing of the CMAQ Github repository. Regular examination of model output for each update in the model repository is needed to record and track impacts of changes in the model and ensure internal consistency;
- Testing the input/output (IO) file structure in CMAQ. The CMAQ IO is currently being revamped, and extensive testing needs to be conducted to ensure its robustness as well as compatibility with other tools and model system components;
- Testing, analysis and evaluation of the Integrated Source-Apportionment Method (ISAM);
- Analyzing near-real time CMAQ simulations and assistance with setting-up and testing the modeling system for the Long-Island Sound Tropospheric Ozone Study; and
- Evaluating data analysis of the US Department of Agriculture's Environmental Policy Integrated Climate (EPIC) model, which is coupled with CMAQ to simulate the exchange of chemicals between the air and land, and transport of chemicals through soil to ground and surface waters.

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

Hours: Full time.

Salary: Hourly wage for hours worked at a rate of $28.99 per hour.

Employer: Selected applicant will become a temporary employee of ORAU working as a contractor at EPA.

Travel: Occasional overnight travel may be required.

Working Conditions: The selected candidate will 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 is full-time and expected to begin

in April 2020. The initial project is through May 14, 2020 with potential optional periods.

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Qualifications	- Be at least 18 years of age **and** - Have earned at least a Master's degree in Engineering, Computer Science, Atmospheric Science, Environmental Science, Applied Math/Physics 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.

Eligibility Requirements	- **Citizenship:** LPR or U.S. Citizen
	- **Degree:** Master's Degree or Doctoral Degree received within the last 24 months or anticipated to be received by 4/30/2020 11:59:00 PM.
	- **Overall GPA:** 2.00
	- **Discipline(s):**
	  - **Computer, Information, and Data Sciences** (16 👁)
	  - **Earth and Geosciences** (21 👁)
	  - **Engineering** (27 👁)
	  - **Environmental and Marine Sciences** (14 👁)
	  - **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 Engineering, Computer Science, Atmospheric Science, Environmental Science, Applied Math, Physics, 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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