

Opportunity Title: Geospatial Analysis for Environmental and Public Health

Opportunity Reference Code: EPA-ORD-NERL-EMMD-2018-01

Organization U.S. Environmental Protection Agency (EPA)

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How to Apply A complete application consists of:

- An application
- Transcripts – [Click here for detailed information about acceptable transcripts](#)
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional references

All documents must be in English or include an official English translation.

If you have questions, send an email to EPArpp@ornl.gov. Please include the reference code for this opportunity in your email.

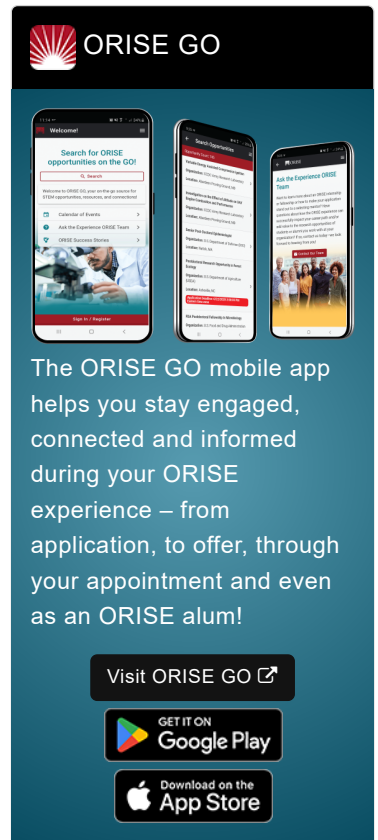
Description A research participation training opportunity is currently available at the U.S. Environmental Protection Agency's (EPA) Office of Research and Development (ORD)/National Exposure Research Laboratory (NERL). This appointment will be served with the Exposure Methods and Measurements Division (EMMD) in Research Triangle Park, NC.

The research participant in collaboration with the EnviroAtlas team will be involved in the research, development, quality-assurance, and documentation of geospatial data and tools to be incorporated into EnviroAtlas. The participant will be encouraged and mentored to conduct research seeking to establish relationships between ecosystem services, the built environment, public health, and well-being. The research participant may also be involved in developing new and innovative ways to quantify ecosystem services both from an ecological as well as a socio-economic perspective, and researching and developing "use cases" in which EnviroAtlas data and tools are used to inform a specific on-the-ground decision. The participant might utilize existing eCognition rule sets developed for a Salt Lake City prototype and be involved to modify them to classify similar and dis-similar landscape patterns and features as required. The research participant will receive training to enhance current skills related to the development of highly complex geospatial data and tools for EnviroAtlas. This may include geospatial using software such as ArcGIS, Python, R Project for Statistical Computing, eCognition, ENVI, and others. The participant may have the opportunity to create data and tools that could be included in EnviroAtlas and publish those data and methods in the scientific literature. The research participant will also learn how to operate "big data" or very large data sets with millions of records.

This program, administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education, was established through an interagency agreement between DOE and EPA. The appointment is full time for for one year and may be renewed upon recommendation of EPA and contingent on the availability of



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funds. The participant will receive a monthly stipend. Funding may be made available to reimburse the participant's travel expenses to present the results of his/her research at scientific conferences. No funding will be made available to cover travel costs for pre-appointment visits, relocation costs, tuition and fees, or participant's health insurance. The participant must show proof of health and medical insurance. **The participant does not become an EPA employee.**

The mentor for this project is Drew Pilant (pilant.drew@epa.gov). The desired start date is April 9, 2018.

Qualifications Applicants must have received a master's or doctoral degree in environmental or public health sciences, geography, GIS, spatial analysis, or a closely related discipline within five years of the desired starting date. Students currently enrolled pursuing a master's or doctoral degree at an accredited U.S. college or university are also eligible to apply. Students will be required to provide proof of enrollment each semester. Experience in land cover classification and remote sensing is desired.

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Master's Degree or Doctoral Degree received within the last 60 month(s).
 - **Discipline(s):**
 - **Communications and Graphics Design** ([1](#))
 - **Computer, Information, and Data Sciences** ([1](#))
 - **Earth and Geosciences** ([2](#))
 - **Environmental and Marine Sciences** ([2](#))
 - **Life Health and Medical Sciences** ([3](#))
 - **Social and Behavioral Sciences** ([2](#))