

**Opportunity Title:** EPA Postdoctoral Fellowship in Laboratory Systems Data Analysis

**Opportunity Reference Code:** EPA-OTAQ-2021-03

## Organization

U.S. Environmental Protection Agency (EPA)

## Reference Code

EPA-OTAQ-2021-03

## How to Apply

**Connect with ORISE...on the GO!** Download the new ORISE GO mobile app in the [Apple App Store](#) or [Google Play Store](#) to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. All transcripts must be in English or include an official English translation. Click [here](#) for detailed information about transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations

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

If you have questions, send an email to [ORISE.EPA.REG@ora.gov](mailto:ORISE.EPA.REG@ora.gov). Please include the reference code for this opportunity in your email.

## Application Deadline

4/29/2021 3:00:00 PM Eastern Time Zone

## Description

**\*Applications will be reviewed on a rolling-basis.**

A research opportunity is available at the U.S. Environmental Protection Agency's (EPA) Office of Transportation and Air Quality (OTAQ). This appointment will be served with the Testing and Advanced Technology Division located in Ann Arbor, Michigan. **\*While facility is closed due to Covid-19 precautions, the participant will perform all research remotely. Once the facility reopens, the participant is required to perform all research in the lab and telework will no longer be authorized except in special circumstances, such as facility closure due to hazardous weather.**

As transportation systems become increasingly complex, government and industry stakeholders are faced with a growing need to analyze large datasets, enabled by powerful on-vehicle computing systems, high-bandwidth data connectivity and massive data storage systems. The EPA's National Vehicle & Fuel Emissions Laboratory, Testing and Advanced Technology Division, is seeking a post-doctoral researcher who will collaborate with NVFEL staff and university faculty to research the novel application of machine learning and artificial intelligence algorithms to transportation-related laboratory data. The participant will have the opportunity to develop effective communication materials based on their research which could train others in the application of advanced data analysis methods to laboratory data.

Through this research opportunity, the participant will survey the methods and sources of environmental data at NVFEL and identify and develop algorithms for analyzing the data; further their experience with regulatory science programs and data needs in a government laboratory setting, in collaboration with NVFEL staff; and enhance skills for effective communication related to machine learning and data science.

The mentor for this opportunity is Matthew Brusstar ([brusstar.matt@epa.gov](mailto:brusstar.matt@epa.gov)).

## Anticipated Appointment Start Date: Fall 2021

This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and EPA. The initial appointment is for one year and may be renewed upon recommendation of EPA contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits.

## Qualifications

The qualified candidate should have received a doctoral degree in one of the relevant fields. Degree must have been received within five years of the appointment start date.

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Preferred skills:

- Primary interest in collection, processing and analysis of large and varied datasets
- Experience with machine learning tools, including Sci-Kit Learn and Tensorflow, and programming languages, including Python and R
- Practical, general experience with laboratory data systems

**Eligibility Requirements**

- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 8/31/2021 11:59:00 PM.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (17 )
  - **Engineering** (27 )
  - **Mathematics and Statistics** (11 )

**Affirmation**

I certify that I have lived in the United States for the past three years.