

Opportunity Title: USDA-ARS Postdoctoral Research Fellowship in Remote Sensing

Opportunity Reference Code: USDA-ARS-NEA-2025-0053

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-NEA-2025-0053

How to Apply *To submit your application, scroll to the bottom of this opportunity and click APPLY.*

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. 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 recommendations
- A copy of an abstract or reprint of an article

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

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Application Deadline 8/29/2025 3:00:00 PM Eastern Time Zone

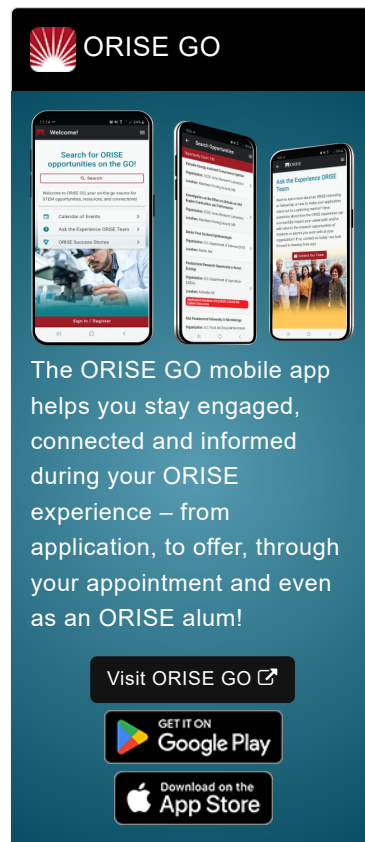
Description *Applications may be reviewed on a rolling-basis, and this opportunity could close before the application deadline.

ARS Office/Lab and Location: A postdoctoral research opportunity is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), at the Hydrology and Remote Sensing Laboratory (HRSL) located in Beltsville, Maryland.

The Agricultural Research Service (ARS) is the U.S. Department of Agriculture's chief scientific in-house research agency with a mission to find solutions to agricultural problems that affect Americans every day from field to table. ARS will deliver cutting-edge, scientific tools and innovative solutions for American farmers, producers, industry, and communities to support the nourishment and well-being of all people; sustain our nation's agroecosystems and natural resources; and ensure the economic competitiveness and excellence of our agriculture. The vision of the agency is to provide global leadership in agricultural discoveries through scientific excellence.

Research Project: The Hydrology and Remote Sensing Laboratory (HRSL) at the USDA Agricultural Research Service (ARS) in Beltsville, Maryland seeks applications for a post-doctoral fellow to investigate applications for multi-scale/multi-sensor satellite retrievals of evapotranspiration (ET), vegetation index (VI) and derived phenology and yield products in monitoring response of range, forest, and croplands to management and climate. These timeseries will be used to assess impacts of regenerative grazing on pasture and soil health over time, and to upscale in situ measurements to landscape scale. Other applications may involve water management and accounting in croplands, yield prediction, and drought impact assessment.

Learning Objectives: The participant will have the opportunity to learn and use software packages developed by the HRSL scientists to generate and biophysical remote sensing timeseries using



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Google Earth Engine (GEE) and other analysis toolkits. They will be able to conduct research with the new OpenET platform (etdata.org) on GEE, and learn/use Machine Learning approaches. The participant will also have opportunity to interact with a broad group of national and international collaborators, engage in field research, and publish research results with the HRSL scientists.

Mentor(s): The mentor for this opportunity is Martha Anderson (martha.anderson@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: Summer/Fall 2025. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year, but may be renewed upon recommendation of ARS and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience.

Citizenship Requirements: This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the [Guidelines for Non-U.S. Citizens Details](#) page of the program website for information about the valid immigration statuses that are acceptable for program participation. Foreign national candidates may have a mandatory in-person requirement depending on visa status.

ORISE Information: 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 ARS. Participants do not become employees of USDA, ARS, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process please email ORISE.ARS.Northeast@ornl.gov and include the reference code for this opportunity.

Qualifications The qualified candidate should have received or be pursuing a doctoral degree in one of the relevant fields.

Preferred Skills:

- A robust educational background related to remote sensing
- Strong mathematical and computing skills
- Knowledge of soils, vegetation water use and crop development
- Strong programming expertise analyzing large images using Python, C, Fortran, R, IDL/Matlab or similar computing language
- Familiarity with the Google Earth Engine programming environment

Point of Contact [Janeen](#)

Eligibility Requirements

- **Degree:** Doctoral Degree.
- **Discipline(s):**

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- **Computer, Information, and Data Sciences** ([2](#)👁)
- **Earth and Geosciences** ([21](#)👁)
- **Engineering** ([3](#)👁)
- **Environmental and Marine Sciences** ([7](#)👁)
- **Life Health and Medical Sciences** ([9](#)👁)
- **Mathematics and Statistics** ([3](#)👁)
- **Physics** ([2](#)👁)
- **Social and Behavioral Sciences** ([1](#)👁)

Affirmation I affirm that:

- I am a US Citizen, OR;
- I am a non-US citizen currently living in the United States