

**Opportunity Title:** USDA-ARS Improving Information Delivery Systems for On-Farm Management

**Opportunity Reference Code:** USDA-ARS-NEA-2026-0016

**Organization** U.S. Department of Agriculture (USDA)

**Reference Code** USDA-ARS-NEA-2026-0016

**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

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

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**Application Deadline** 3/27/2026 3:00:00 PM Eastern Time Zone

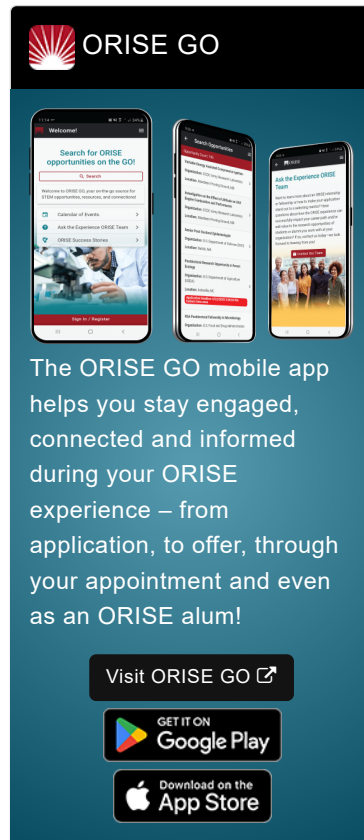
**Description** \*Applications are reviewed on a rolling-basis.

**ARS Office/Lab and Location:** A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), 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.


The Adaptive Cropping Systems Laboratory (ACSL) at the USDA-ARS Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland conducts integrated experimental and modeling research to understand how crops respond to key abiotic factors such as weather, soil conditions, and management practices. Our team designs and carries out controlled experiments and develops, validates, and applies advanced mathematical models to investigate a wide range of agricultural challenges, including the impacts of extreme weather on crop production, land suitability assessment, food security, on-farm resource management, and farmer


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competitiveness.

**Research Project:** Our stakeholders—including farmers and crop advisors—need clear, science-based guidance on how to manage farming operations in response to current and projected weather and soil conditions. We are seeking an intern to continue development of an existing web-based portable information delivery system (ID) that integrates on-farm data streams, ACSL crop and soil models, and weather forecasts. This toolkit is intended to provide in-season decision support, helping end users optimize site-specific farm management.

The participant will continue development of an existing IDS platform and support its deployment with end-users under the guidance of laboratory mentors. Activities will include computer programming related to database development, extension of the IDS graphical user interface, and integration of our crop and soil models. Database activities will involve capturing model-based scenario input and output data that can be queried in real time. The participant will also collaborate with on-site scientific staff to transition components of an existing Windows-based graphical interface into the new web-based IDS framework. Additional opportunities include exploring portable versions of our models and applying artificial intelligence methods to enable interaction through mobile platforms.

**Learning Objectives:** The participant will collaborate with an established multidisciplinary team with international expertise in crop and soil modeling, gaining knowledge about extreme weather impacts, and how crops and soils respond to genetic, environmental, and management inputs. The participant will develop new skills in computer programming and model application and will gain experience engaging with stakeholders in the development and use of decision-support technologies for agricultural systems.

Deployment of the web-based IDS during the participant's term is expected to draw significant attention from crop consultants, scientists, and other agricultural stakeholders outside the laboratory. The participant will receive full credit for their contributions, including recognition as a co-principal investigator in the web-app contributors list. This visibility can help establish the participant as an innovative and impactful software engineer, potentially opening the door to additional high-profile opportunities.

The participant will also interact daily with world-class experts in agricultural modeling, agronomic science, and model-based decision support. These interactions will broaden their experience across multiple scientific disciplines and strengthen their confidence in developing innovative, stakeholder-oriented software tools.

**Mentor(s):** The mentor for this opportunity is David Fleisher ([david.fleisher@usda.gov](mailto:david.fleisher@usda.gov)). If you have questions about the nature of the research, please contact the mentor(s).

**Anticipated Appointment Start Date:** March 1, 2026. Start date is flexible

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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. **The anticipated stipend range is \$64,000 - \$110,000 annually.**

**Citizenship Requirements:** This opportunity is available to U.S. citizens only.

**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@oraui.org](mailto:ORISE.ARS.Northeast@oraui.org) and include the reference code for this opportunity.

**Qualifications** The qualified candidate should have received or be currently pursuing an associate's, bachelor's, master's, or doctoral in the one of the relevant fields.

**Preferred skills:**

- Demonstrated self-starter with postgraduate level experience (BS or MS with 3 + years) in computer science / data science or related field with demonstrated experience in software engineering.
- Selection factors include coding proficiency / experience in: API and front-end development (eg. HTML, CSS, JavaScript); programming languages (e.g. PYTHON); relational databases and query languages (e.g. SQL); testing/troubleshooting software programming using debugging tools; source control management (e.g. Git, TeamFoundation).
- Familiarity with Docker containers and both Windows and Linux operating systems will be extremely helpful.

**Stipend** \$64,000.00 – \$110,000.00 Yearly

**Point of Contact** [Janeen](#)

**Eligibility** • **Citizenship:** U.S. Citizen Only

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- Requirements**
- **Degree:** Associate's Degree, Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
  - **Discipline(s):**
    - **Computer, Information, and Data Sciences** ([17](#))
    - **Earth and Geosciences** ([21](#))
    - **Engineering** ([29](#))
    - **Life Health and Medical Sciences** ([7](#))
    - **Mathematics and Statistics** ([2](#))
    - **Physics** ([16](#))