Opportunity Title: USDA-ARS Artificial Intelligence Tool for Pome Fruit Trait Ratings
Opportunity Reference Code: USDA-ARS-HQ-2026-0150

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-HQ-2026-0150

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 6/5/2026 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 Huntsville, Alabama.

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: Careful visual assessments of pome fruit for defects and other symptoms are often performed in postharvest research experiments and by stakeholder industries. Example ratings include color, disorder incidence, and starch clearing (a maturity index). Two primary challenges occur with ratings such as rater bias and lack of granularity. Rater bias occurs when ratings are determined in a subjective manner such that two human raters may rate the same fruit differently. Second, many of these traits are rated using visual cues such color cards or pattern cards

that do not fully capture the range of variation. These challenges create problems for researchers because rater bias prevents results from being compared across experiments and the lack of granularity reduces experimental sensitivity such that important patterns may be missed.

The impact of these challenges directly affects our research and the industry. As an example, in partnership with the Washington Tree Fruit Research Commission, our team is developing a new maturity index model using molecular markers in pome fruit at harvest. We need cross-experiment, higher granularity trait data to ensure high-performance of our models. Moreover, postharvest losses in quality, virtually all of which are relatable to at-harvest maturity, are costly and wasteful; ~30% (3B lbs) of all pome fruit is culled. An unbiased, objective, and fast fruit rating system could help the industry to make better storage and marketing decisions, thus reducing waste and improving efficiency.

Learning Objectives: This training opportunity aims to build skills for delivering impactful precision ag research results. Under the guidance of a mentor, the participant will:

- Learn about the mechanisms of tech transfer/extension and craft a plan to facilitate adoption of the precision ag tools in development by Honaas and his team.
- Learn to communicate with early adopters to support the roll out of precision ag products/protocols/software.
- Collaborate and gain experience from other team members across research disciplines, especially bioinformaticians and software developers, in order to find areas of synergy for the development of molecular decision aid tools for farmers.

Mentor(s): The mentor for this opportunity is Loren Honaas (loren.honaas@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: May 27, 2026. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for two years.

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 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,

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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.HQPostdoc@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a doctoral degree in one of the relevant fields. Degree must have been received within the past four years before the start of the appointment.

Point of Contact Janeen

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (3 👁)
  - **Life Health and Medical Sciences** (4 👁)