

Opportunity Title: USDA-ARS Enhancing the GrainGenes Database

Opportunity Reference Code: USDA-ARS-PWA-2024-0311

Organization U.S. Department of Agriculture (USDA)

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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 11/8/2024 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). **This opportunity is remote.**

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: GrainGenes (<https://wheat.pw.usda.gov>) is a digital platform that serves small grains research communities as their central data repository and as a facilitator for community activities. It has funded by the U.S. Department of Agriculture-Agricultural Research Service to ensure long-term data sustainability and interactivity, primarily for wheat, barley, oat, and rye. As part of a highly collaborative, multi-disciplinary team, the selected candidate will use his/her computational background and passion to enhance the database web interface and content.

Learning Objectives: The participant will learn the application of



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computational methods used to develop new tools and content in a modern biological database. The participant will learn and enhance teamwork, technical presentation, scientific writing skills.

Mentor(s): The mentor for this opportunity is Taner Sen (taner.sen@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: 2024. 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 part-time during the school year and full time during summer.

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.

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

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

Preferred skills:












- Demonstrated experience with computer programming
- Demonstrated experience with UNIX/LINUX command line
- Ability to research independently, as well as part of a team, while building and nurturing collaborations with external research groups
- Excellent written and verbal communication skills to disseminate research findings and keeping team members and collaborators informed

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- Experience in genome analysis and computational biology especially in plants
- Experience in machine learning

**Eligibility
Requirements**

- **Degree:** Associate's Degree, Bachelor's Degree, Master's Degree, or Doctoral Degree.
- **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#) )
 - **Communications and Graphics Design** ([2](#) )
 - **Computer, Information, and Data Sciences** ([17](#) )
 - **Earth and Geosciences** ([21](#) )
 - **Engineering** ([27](#) )
 - **Environmental and Marine Sciences** ([14](#) )
 - **Life Health and Medical Sciences** ([51](#) )
 - **Mathematics and Statistics** ([11](#) )
 - **Physics** ([16](#) )
 - **Science & Engineering-related** ([2](#) )
 - **Social and Behavioral Sciences** ([29](#) )

Affirmation I affirm that:

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