

Opportunity Title: USDA-ARS Postgraduate Research Associate Fellowship -

Geospatial Data Specialist

Opportunity Reference Code: USDA-ARS-PW-2023-0080

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-PW-2023-0080

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A complete application consists of:

- An application
- Transcripts – [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.

Application Deadline 1/12/2024 3:00:00 PM Eastern Time Zone

Description *Applications may be reviewed on a rolling-basis.

ARS Office/Lab and Location: A postdoctoral research opportunity is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), located in Maricopa, Arizona.

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 research project focuses on large scale spatial modeling to address issues related to land use and land management practices and their implications on crop production and environment. The major activities for the participant includes a) processing large spatial datasets using open-source programming tools (e.g., R, Python and C); b) implementing spatial and remote sensing data processing algorithms to produce datasets to integrate and/or assimilate into crop models; and c) analyzing spatial data sets and developing predictive models using statistical techniques.

Learning Objectives: This opportunity will provide experience in 1) using open-source programming tools; 2) working on large spatial datasets and 3) summarizing and presenting results.

Mentor: The mentor for this opportunity is Varaprasad Bandaru (prasad.bandaru@usda.gov). If you have questions about the nature of the research, please contact the mentor.



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Anticipated Appointment Start Date: 2023. 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.





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@ornl.gov and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a bachelor's or master's degree in one of the relevant fields, or currently be pursuing one of the degrees to be received by start of appointment.

Preferred Skills include:

1. Experience working on spatial data processing using ArcGIS, R, and/or Python.
2. Experience working with large datasets and data mining techniques.
3. Experience in geostatistical and spatial analyses.
4. Experience working with remote sensing datasets.
5. Experience working in the Unix/Linux environment.

- Eligibility Requirements**
- **Degree:** Bachelor's Degree or Master's Degree.
 - **Discipline(s):**
 - **Computer, Information, and Data Sciences** ([2](#) )
 - **Earth and Geosciences** ([2](#) )
 - **Engineering** ([4](#) )
 - **Life Health and Medical Sciences** ([2](#) )