

Opportunity Title: USDA-FS Information Technology Fellowship for the Fire Modeling Institute

Opportunity Reference Code: USDA-FS-RMRS-2024-0256

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-FS-RMRS-2024-0256

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. At least one recommendation must be submitted in order for the mentor to view your application.

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

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the [Apple App Store](#) or [Google Play Store](#) to help you stay engaged, connected, and informed during your ORISE experience and beyond!

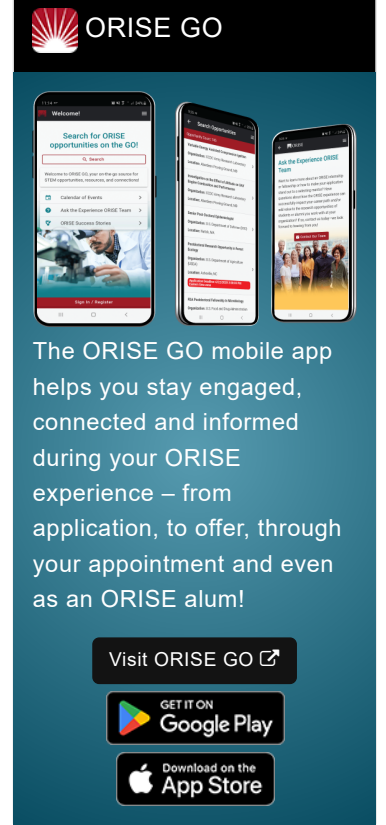
Application Deadline 8/2/2024 3:00:00 PM Eastern Time Zone

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

USDA Forest Service Office/Lab and Location: A fellowship opportunity is available with the US Department of Agriculture (USDA) Forest Service (FS) within the Rocky Mountain Research Station (RMRS) located in Missoula, Montana. This specific opportunity is with the Fire Modeling Institute (FMI) at the Missoula Fire Sciences Laboratory. FMI is a center of expertise that supports fire and fuels management planning, resource management, and science implementation locally, regionally, nationally, and internationally.


At the heart of the USDA Forest Service's mission is their purpose. Everything they do is intended to help sustain forests and grasslands for present and future generations. Why? Because their stewardship work supports nature in sustaining life. This is the purpose that drives the agency's mission and motivates their work across the agency. It's been there from the agency's very beginning, and it still drives them. To advance the mission and serve their purpose, the USDA Forest Service balances the short and long-term needs of people and nature by: working in collaboration with communities and our partners; providing access to resources and experiences that promote economic, ecological, and social vitality; connecting people to the land and one another; and delivering world-class science, technology and land management.


Research Project: FMI is currently engaged in a national-scale project


 OAK RIDGE INSTITUTE
FOR SCIENCE AND EDUCATION

ORISE GO

The ORISE GO mobile app helps you stay engaged, connected and informed during your ORISE experience – from application, to offer, through your appointment and even as an ORISE alum!

Visit ORISE GO 

GET IT ON
 Google Play

Download on the
 App Store

Opportunity Title: USDA-FS Information Technology Fellowship for the Fire

Modeling Institute

Opportunity Reference Code: USDA-FS-RMRS-2024-0256

focused on evaluating the effectiveness of landscape fuel treatments at reducing wildfire risk to homes and critical infrastructure in the United States. One important component of this project involves building upon existing software tools for calculating quantitative wildfire risk metrics. The project will require modifying and adapting existing wildfire simulation modeling software to add functionality and increase efficiency. It will also include automating calculations of pre-treatment and post-treatment wildfire risk and related metrics. It may also include figuring out how to implement these simulation models and risk calculations in different computing environments, with an eye toward leveraging cloud-based computing resources.

Learning Objectives: This participant will have the opportunity to apply information technology knowledge and technical skills in software engineering to address a very important part of the Forest Service's Wildfire Crisis Strategy. They will have the opportunity to learn about the application of IT skills in the areas of wildfire science, wildfire behavior modeling, risk calculations, and processing and visualization of geospatial data. Specific learning objectives include:

- Learn about, and help to evaluate the pros and cons of, different cloud computing environments available to Forest Service employees for fire modeling.
- Learn about the codebase for different fire modeling applications developed at the Missoula Fire Sciences Lab like FSim, FlamMap, and others and apply knowledge and skills to improve these applications.
- Learn about web-based wildfire decision support and modeling tools such as the Wildland Fire Decision Support System, the Interagency Fuels Treatment Decision Support System, and the related Fire Modeling Services Framework.
- Learn about the fundamentals of fire science behind different fire modeling systems.

Mentor: The mentors for this opportunity are Gregory Dillon (greg.dillon@usda.gov) and Mark Finney (mark.finney@usda.gov). If you have questions about the nature of the research, please contact the mentors.

Anticipated Appointment Start Date: August 1, 2024. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year and eight months. but may be extended upon recommendation of USDA Forest Service 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](#)

Opportunity Title: USDA-FS Information Technology Fellowship for the Fire Modeling Institute

Opportunity Reference Code: USDA-FS-RMRS-2024-0256

[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 USDA Forest Service. Participants do not become employees of USDA, USDA Forest Service, 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.USFS.RMRS@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should be currently pursuing or have received a bachelor's degree in the one of the relevant fields.

- Eligibility**
- **Degree:** Bachelor's Degree.
- Requirements**
- **Discipline(s):**
 - **Computer, Information, and Data Sciences** (4👁)