



USDA Forest Service Resource Assistant Program

Position. Fire Modeling Fellow

Duration. 6 Month Fellowship (26 weeks): Starting February 2023 - August 2023 (dates are dependent upon the start date)

Location. U.S. Forest Service, Southern Research Station, Center for Forest Health and Disturbance Science, Athens, GA

Reports To. The Fire Modeling Fellow will report to the Director of the Center for Forest Health and Disturbance.

Job Overview

The Fire Modeling Fellow will assist scientists from the station and partner organizations to develop and test a new fire model for application to prescribed fire. The focus will be working with partners to test the new model for a range of scenarios, document any issues, and work with the team to develop solutions to those issues. Success involves the development of a set of test cases for the model and drafting a paper on one or more of these case studies.

Responsibilities and Duties

Work as part of a team testing and developing a new fire model for application to prescribed fire. This position will be responsible for applying the model to a range of scenarios, assessing model performance for each scenario, and communicating any deficiencies in model performance to the team to help guide further model improvements.

Assist in the development of a manuscript documenting model performance on the test cases and communicate results with partners.

Assist in the development of visualizations to best convey model results and performance for both scientific and general audiences.

Qualifications

MS or Ph.D. in mathematics, computer science, mechanical engineering, or physical science.

Experience working in a LINUX computing environment and programming in FORTRAN and/or Python.

Experience with data visualization tools such as Paraview or VTK

Ability to communicate both orally and in writing to a diverse audience—for example, from team scientists to foresters and prescribed fire practitioners.



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Minimum Requirements

- Completion of MS or Ph.D. at an accredited college or university
- US citizenship or permanent residency. RAs must undergo a government background check if selected.
- Participation in US Forest Service Orientation Training scheduled for February 2023