Ph.D. Student - Wildfire Science and Technology Lab
University of Nevada, Reno

Job Title	Ph.D. Student - Wildfire Science and Technology Lab
Department	Civil Engineering / Computer Science / Mechanical Engineering
Institution	University of Nevada, Reno Reno, Nevada
Date Posted	Oct. 14, 2025
Application Deadline	Open until filled
Position Start Date	Aug. 1, 2026
Job Categories	Graduate Student
Academic Field(s)	Water Resources Engineering Structural Engineering Risk Management & Financial Engineering Mechanical Engineering Ecological and Environmental Engineering Physics Engineering Mechanics Computer Engineering Computer Science Civil Engineering Aerospace/Aeronautical/Astronautics Engineering - Other
Job Website	https://www.wildfirehub.org/about-5
Apply By Email	hebrahimian@unr.edu

Job Description

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The newly established Wildfire Research and Technology Lab at University of Nevada, Reno (www.wildfirehub.org) invites applicants for multiple cross-disciplinary Ph.D. positions to conduct research in technological and scientific aspects of Wildfire Engineering across the Pre-Fire, Active-Fire, and Post-Fire domains. Our goal is to develop new capabilities to effectively prepare for, respond to, and recover from wildfires. We seek dynamic individuals who are curious and interested in various aspects of this problem, willing to work within a multidisciplinary team in a fast-paced research and development environment, learn new skills, interact with end-users, and produce high-quality research products. The positions are part of a cluster hire in support of the new Lab. The candidates will interact with other research teams at the Lab as well as faculty members at UNR and other partnering institutes and agencies. Depending on the background, candidates can be admitted and hosted within Civil and Environmental Engineering, Mechanical Engineering, Computer Science, or other Departments.

For Pre-Fire problem domain, we seek candidates with strong interest in engineering risk, reliability, and stochastic simulation concepts. For Active-Fire area, we seek candidates with strong interest and past expertise in analytical and computational methods related to physics-based wildfire simulation, fuel modeling, remote sensing, data-driven methods, artificial intelligence, and real-time applications. In the post-fire domain, we seek candidates with modeling capabilities for assessing how post-wildfire ecological alterations to soil and hydrology, impacts of pyrogenic particles and smoke, altered vegetation and hydrology, and targeted restoration activity affecting functioning and shape recovery.

Required Qualifications

- M.S. in Engineering, Physics, Computer Science, Ecology and Forestry, Earth Science, or related fields.
- A master’s degree with GPA > 3.5.
- Excellent English-language communication skills (oral and written).
- Demonstrated ability to perform research and publish results in peer-reviewed literature.

Preferred Qualifications

Candidates should have a solid background in one or more of the following subjects:

- Computer programming – past experience with MATLAB, Python, and/or C++.
- Experience with cloud computing, GPU-based computing, and a working knowledge in Linux.
- Large-scale computational modeling and simulation.
- Machine learning, neural networks, and artificial intelligence.
- Spatial data analysis.
- Statistics, probability, reliability, and engineering risk assessment.

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- Methods for stochastic simulation and uncertainty quantification.
- Fire sciences.

Application / Review Process

Qualified individuals interested in this position must communicate directly with Professors Hamed Ebrahimian (email to hebrahimian@unr.edu) and Dani Or (email to dor@unr.edu) and include the required documents below.

- Cover letter detailing how you meet the listed educational and experience qualifications.
- Current resume or CV.
- All academic transcripts.

Qualified individuals are encouraged to apply immediately and provide all required attachments to receive full consideration. Review of applications will begin immediately and continue until the position is filled. For more information, visit www.wildfirehub.org.

EEO/AA Policy

The University of Nevada, Reno recognizes that diversity promotes excellence in education and research. We are an inclusive and engaged community and recognize the added value that students, faculty, and staff from different backgrounds bring to the educational experience.

The Nevada System of Higher Education (NSHE) is committed to providing a place of work and learning free of discrimination on the basis of a person's age, disability, whether actual or perceived by others (including service-connected disabilities), gender (including pregnancy related conditions), military status or military obligations, sexual orientation, gender identity or expression, genetic information, national origin, race, or religion.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

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Contact Hamed Ebrahimian
University of Nevada, Reno
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Contact E-mail hebrahimian@unr.edu