



Boise State University (Department of Civil Engineering; Dr. Moji Sadegh) and The University of California, Merced (Management of Complex Systems Department; Dr. John Abatzoglou) jointly invite applications for two postdoctoral research associate positions for a Joint Fire Science Program-funded project focused on understanding, modeling and forecasting human-caused fires over the Western US. This project will develop a machine learning model of human ignitions using a myriad of biophysical, land cover/use, anthropogenic factors, social factors and fire prevention data. Further, project aims to model probability of fire growth, answer fundamental scientific questions on trends and drivers of human ignitions and identify most effective fire prevention strategies. Humans play a substantial role in shaping the growing wildfire hazard across many regions, including igniting 84% of fires across the US. Additional understanding of the patterns and drivers of human ignitions, the factors that facilitate growth on such fires, and the efficacy of fire prevention efforts is needed to prioritize cost-effective mitigation efforts and limit adverse impacts.

Project offers close collaboration with university and fire-science community researchers, as well as local to national land and fire managers.

**Postdoctoral scholar 1:**

**Task:** Develop a deep learning model of human ignitions

**Salary:** \$55,000-\$56,000, **Start date:** preferably October 1, 2021, **Duration:** 1 year with a 1-year extension upon satisfactory performance, **Location:** Boise, ID (negotiable)

**Postdoctoral scholar 2:**

**Task:** Model and visualize human ignitions and fire prevention scenario development

**Salary:** \$58,000-\$60,000, **Start date:** preferably October 1, 2021, **Duration:** 1 year with a 2-year extension upon satisfactory performance, **Location:** Merced, CA (negotiable)

**Basic Qualifications:**

- A PhD in Data Science, Earth Science, Engineering, Geography, or a closely-related field by start date;
- Extensive experience using convolutional-based deep learning models, as well as high performance and cloud computing;
- Extensive experience with scientific computer programming, preferably in Python;
- Familiarity with compiling, fusing and working with large, complex datasets with different spatiotemporal resolutions;

**Additional/Preferred Qualifications:**

- Demonstrated record of high-quality publications;
- Demonstrated success working and communicating in a team environment;
- Experience working on fire science;
- Excellent communication and presentation skills.

**Application Instructions:**

Email your application materials in one PDF file to [mojtabasadegh@boisestate.edu](mailto:mojtabasadegh@boisestate.edu) and [jabatzoglou@ucmerced.edu](mailto:jabatzoglou@ucmerced.edu), including: a cover letter describing your research interests, career goals and suitability for the project (1-2 pages), your CV, and a list of three professional references with contact information. **Positions are open until filled.**