

https://www.standinsurance.com/careers?ashby_jid=21bf587a-312c-4a23-91d0-68c3c91e1fa4#open-positions

Background:

Most property insurers assess wildfire risk using broad proxies, backward-looking loss data, and simplified hazard scores. While sufficient for portfolio pricing, these tools break down at the property level—where homeowners need to understand what actually drives loss and what actions meaningfully reduce it.

Stand operates from first principles. We simulate fire behavior and structure exposure using deterministic, physics-based models, then validate those models against controlled fire experiments. The result is a shift from correlation-based pricing to a causal understanding of wildfire risk and mitigation effectiveness.

Experiments and simulation validation are, therefore, foundational to our work. Converting experimental results into clean, well-documented, simulation-ready datasets is critical to ensuring our models are accurate, trustworthy, and actionable for underwriting and mitigation decisions.

Location: Onsite in Jackson Square, San Francisco.

Compensation: \$30/hr. Targeting 40/hrs a week. We do not cover relocation or lodging stipends.

Role Description:

We're seeking a Fire Science Engineering Intern to support Stand's fire experimentation and simulation validation efforts. This role spans experiment design, execution, data processing, and numerical simulation tie-out.

You will help design and run controlled fire experiments, manage instrumentation and data capture, and convert raw experimental outputs into validation-ready datasets that directly support physics-based fire modeling.

This is an immersive, project-based internship designed for students or early-career engineers interested in fire science, experimental methods, and computational modeling—not a survey or observer role.

Core Responsibilities:

- Design and support controlled fire experiments by defining test conditions, configurations, and instrumentation layouts
- Operate experimental instrumentation, DAQ systems, and cameras during live fire tests to ensure complete and synchronized data capture

- Troubleshoot sensor, DAQ, and timing issues under real test-day constraints
- Process raw experimental outputs into clean, reproducible, validation-ready datasets using repeatable workflows
- Support numerical simulations and perform experimental–simulation comparisons for fire model validation
- Maintain clear run logs, data documentation, and experimental runbooks to ensure repeatability and knowledge transfer

Must-Have Skills:

- Hands-on experience setting up and operating experimental instrumentation and DAQ systems
- Familiarity with fire-related experiments and strong laboratory safety discipline
- Experience operating sensors or diagnostics and aligning multi-channel data in time
- Proficiency in time-series data processing, visualization, and basic data quality checks
- Strong documentation habits, including run logs, data notes, and clear technical summaries
- Ability to work independently and troubleshoot issues during live experiments

Nice-to-Have Skills:

- Experience with CFD / fire modeling tools
- Familiarity with experimental validation of numerical or physics-based models
- Experience working in test-day or field-like experimental environments under time pressure

What You'll Gain:

- Hands-on experience designing and executing real fire experiments from setup through analysis
- Exposure to fire modeling and experimental validation workflows used in production systems

- Ownership over experimental data that directly supports physics-based wildfire risk models
- Close mentorship from experienced fire science and modeling engineers
- Insight into how fire science translates into real underwriting, mitigation, and product decisions

Equal Opportunity Employment

Stand is an equal opportunity employer and does not discriminate on the basis of protected veteran status, disability, or other legally protected status. We believe that diversity enriches the workplace, and we are committed to growing our team with the most talented and passionate people from every community.

We are committed to providing reasonable accommodations for qualified individuals. If you require assistance

Pursuant to the San Francisco Fair Chance Ordinance, we will consider for employment qualified applicants with arrest and conviction records.