Postdoctoral Position Available: Software development in Computational Fluid Dynamics (CFD) and workflow development. UC Berkeley's NHERI SimCenter (https://simcenter.designsafe-ci.org/) has an immediate opening in software development for a postdoctoral researcher through the Natural Hazards Engineering Research Infrastructure program funded by the National Science Foundation. We are looking for a qualified, motivated researcher with interest and experience in computational fluid dynamics, especially in the context of simulation-based approaches to reliability/risk assessment for Natural Hazards Engineering. Competitive applicants will have strong software development and computational expertise and have demonstrated interest or experience in assessing the effect of winds, waves and/or tsunamis on structures. Knowledge of computational modeling systems for structural analysis, performance-based engineering, and/or geotechnical simulation, though not essential, will be highly regarded.

The project involves the creation of next-generation simulation applications, and educational resources for natural hazards engineering on a scale ranging from single buildings to metropolitan areas. This is a high impact applied effort involving dozens of researchers located across the United States. The Center's software development team is based at UC Berkeley. Advanced skills in computer programming are required. Candidates should have demonstrated experience (3–5 years) in one or more of the following: CFD simulation (OpenFOAM experience desired); software engineering and software design; high-performance computing, scientific workflow systems; computational uncertainty quantification; community software development, version control, documentation, and maintenance; proven knowledge of computer languages used in scientific computing (e.g., C, C++, Modern Fortran), and knowledge of scripting languages used in scientific data processing (e.g., Python); proven experience/knowledge of parallel and multi-thread programming (e.g., MPI, OpenMP, CUDA) and I/O tools for parallel access and management of large datasets. In addition, the candidates must have excellent English language skills, social skills, design sense, and team spirit. Candidates need to be able and willing to work in a highly interdisciplinary environment.

Candidates should submit their application materials as a single pdf file (< 5 MB), including a short cover letter, CV, and copies of academic credentials (bachelor, master/diploma, and PhD) with attention to: Professor Sanjay Govindjee <s_g@berkeley.edu> with copy to Dr. Matt Schoettler <schoettler@berkeley.edu>. Applicants are encouraged to submit their materials as soon as possible. Review of applications will begin on April 22, 2019 and will continue until the position is filled. The desired start date for the successful candidate is May 2019.

The University of California is an equal opportunity affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy see: https://policy.ucop.edu/doc/4000376/NondiscrimAffirmAct.