Project Scientist for Computational Infrastructure for Geodynamics

The Department of Earth and Planetary Sciences at the University of California at Davis seeks to hire a full-time employee as an Assistant Project Scientist to perform research functions in Computational Infrastructure for Geodynamics (CIG). CIG advances Earth science by developing and disseminating software for geophysics and related fields.

Research Activity
The Project Scientist will carry out research and development of scientific software for computational geodynamics. The Project Scientist will be responsible for monitoring, developing and improving upon best practices in software development and engineering for the Computational Infrastructure for Geodynamics (CIG). The Project Scientist will interact with scientists working with CIG and related scientific communities to identify and evaluate major relevant trends in scientific software and numerical methods. In consultation with CIG Director and in collaboration with CIG researchers where appropriate, the Project Scientist will have primary responsibility of implementation of best practices and new methodologies for computational geodynamics research.

The Project Scientist is expected to maintain expertise in high performance computing, computational algorithms for geophysics and closely related scientific domains, new computational solver strategies, new and proven finite element techniques, and parallel processing computations models. The Project Scientist will also participate in benchmarking, validating, verifying, documenting and releasing open-source scientific software.

Responsibilities may include source code modification in an open-source environment, maintaining and monitoring software repositories, review of software contributions of others, development of documentation, development of examples for training and tutorials, presenting relevant work in peer-reviewed journals and at scientific meetings, and providing assisting software use by the CIG community through e-mail, online meetings, workshops, and tutorials.

Publication
The candidate will publish research results in peer-reviewed journals or conference proceedings both independently and in collaboration with the PI or other members of the research team.

Grant Acquisition
The candidate will participate in preparation of proposals for funding from federal and state agencies, foundations, and other funding organizations. The candidate will prepare and assist in the preparation of reports as required by funding agencies. The Project Scientist will participate in preparation of proposals for CIG’s allocation on national
supercomputing facilities such as XSEDE, and may take a leading role in preparing allocation proposals.

**Collaboration**
The candidate will aid in the development of joint research activities between UC Davis, CIG, and other institutions and outside agencies such as national high-performance computing centers, and related research initiatives.

**Professional Competence And Activity**
The candidate will participate in professional societies and conferences appropriate to his or her field and will serve as a reviewer of research proposals and scientific publications as appropriate. The candidate will attend seminars and conferences to present research results and may give oral presentations to public and professional interest groups. The candidate may coordinate and give presentations at seminars, staff meetings or educational functions such as CIG tutorials.

**University And Public Service**
The candidate will engage in public outreach activities, such as presenting scientific research results to the general public and news media. The candidate’s public service will include providing specialized advice to individuals and public agencies. The candidate will engage in University service activities such as guest lecturing and committee service. The Project Scientist may serve as XSEDE Campus Champion, to facilitate researchers’ use of XSEDE resources.

**Qualifications**
- A Ph.D. in geophysics, computational science, or a closely related field
- Analytical skills, strong writing and communication skills, and good interpersonal skills
- Ability to work both independently and cooperatively within a team
- Relevant experience in developing scientific software for geodynamics applications in an open-source environment, including a strong theoretical foundation in geophysics, and experience with benchmarking software for accuracy and performance

**How to Apply:**
Applicant should submit a cover letter, CV, and the names and contact information via UC Davis’ online application system, RECRUIT, located at: https://recruit.ucdavis.edu/apply/JPF01592.

UC Davis is a smoke and tobacco-free campus. Smoking, the use of smokeless tobacco products, and the use of unregulated nicotine products (e-cigarettes) will be strictly prohibited on any UC Davis owned or leased property, indoors and outdoors, including parking lots and residential space.

UC Davis is an affirmative action/equal employment opportunity employer and is dedicated to recruiting a diverse faculty community. We welcome all qualified
applicants to apply including women, minorities, individuals with disabilities, and veterans.