Stanford University

Postdoctoral Fellowships at Stanford University
Digital Human Modeling

A team of faculty at Stanford University, including Professors Scott Delp, Garry Gold, Karen Liu, Akshay Chaudhari, Ellen Kuhl, Oussama Khatib, Fei Fei Li, and Serena Yeung is accepting applications for several Postdoctoral Fellows in digital human modeling. Individuals with backgrounds in biomechanics, neuroscience, biomedical imaging, biomedical informatics, robotics, and computer science are all welcome to apply.

Our team is developing and applying biomechanics, robotics, biomedical imaging, and machine learning to study how humans move to achieve athletic performance, recover from injuries, and improve health and wellbeing. For example, we develop OpenSim (opensim.stanford.edu), a freely available, user extensible software system that is used by researchers around the world to develop models of musculoskeletal structures and create dynamic simulations of movement. Our team is supported by a major new interdisciplinary initiative to study human athletic performance and health, the Mobilize Center (mobilize.stanford.edu), the Restore Center (restore.stanford.edu), Stanford's HAI project (hai.stanford.edu), and other funding sources.

We are searching for outstanding individuals to join our team and develop new methods to simulate and analyze human movement. Our interdisciplinary approach will leverage novel data sources, such as real-world wearable sensors and video, advanced biomedical imaging, multi-scale modeling, and state-of-the-art models of neural control. Fellows will be co-advised by two or more members of the faculty team. Funding is available to support fellows for two or more years. Fellows will have the opportunity to build an interdisciplinary scientific network, participate in mentoring graduate and undergraduate students, and present their work at international scientific meetings.

Stanford University is an affirmative action and equal opportunity employer, committed to increasing the diversity of its workforce. We encourage applications from women, members of minority groups, veterans, persons with disabilities, and others who would bring additional dimensions to the university's research and teaching mission.

Candidates must have:

- A PhD in engineering, computer science, neuroscience, or related fields
- Strong research skills
- Experience in development of computational methods

Experience in one or more of the following areas is also desirable; experience in all of these areas is *not* required: biomechanics, exercise physiology, neural control of movement,

multi-scale modeling, wearable sensors, musculoskeletal modeling/OpenSim, biomedical imaging, computer vision, reinforcement learning, machine learning, computer animation, physics-based simulation, robotics and controls.

Interested applicants should:
(1) Send a letter indicating their interest and experience, a CV, and copies of two representative publications via e-mail to opensim@stanford.edu. Please also include in your letter the names of 1 to 3 faculty you are interested in working with at Stanford.

(2) Complete the short online form.

(3) Arrange for two letters of reference to be sent to opensim@stanford.edu within two weeks of submitting (1) and (2).

We encourage applicants to also send links to software or simulations that they have developed. The review of applications will begin immediately and continue until the positions are filled.