

Postdoctoral Fellow in mHealth and Human-Computer Interaction (Remote or Hybrid-US)

Overview

Our team at UCSF is seeking one postdoctoral scholar to join the UCSF TECH Lab (techlab.ucsf.edu), led by Dr. Peter Washington (profiles.ucsf.edu/peter.washington). The UCSF TECH Lab works on research projects leveraging smartphones, wearables, and custom websites to collect data used to train AI models in a human-centered manner, with the end goal of creating and translating into real-world practices digital diagnostics, digital therapeutics, and remote patient monitoring solutions.

We seek a postdoc who is interested in the intersection of mobile or web development, human-centered design, and running user studies to support the creation and evaluation of novel digital platforms to support AI-powered diagnosis, remote patient monitoring, and adaptive digital interventions and therapeutics. The candidate for this position will leverage their software engineering and human-computer interaction skills to develop AI-powered digital therapeutics, digital interventions, and digital diagnostics that will be used across a wide range of areas, including substance use, mental health, pediatrics.

The UCSF TECH Lab is hosted within the UCSF Division of Clinical Informatics and Digital Transformation (DoC-IT, docit.ucsf.edu), which sits within the Department of Medicine and serves as the academic home for applied clinical informatics at UCSF. DoC-IT also serves as a coordinating entity with key internal and external digital stakeholders across all UCSF mission areas, schools, departments, and divisions. The Division is also the home of UCSF's Clinical Informatics Fellowship and partners with other UCSF entities to develop new education and training programs. Lastly, DoC-IT forges novel partnerships with UCSF health systems, other UCSF affiliates, and industry partners to ensure that our work has real-world impact.

Job Description

The UCSF TECH Lab, within DoC-IT at UCSF, is looking for a postdoctoral fellow to lead their mobile health (mHealth) software engineering and human-computer interaction efforts in consumer digital health informatics. The job will include: (1) building AI-powered smartphone apps for digital mental health therapeutics/interventions, (2) hosting these technologies within UCSF's HIPAA-compliant ecosystem, (3) contributing to existing digital diagnostic platforms on the web, (4) collaborating with our clinical and domain experts to run recruitment efforts to collect novel datasets from the aforementioned

mobile/web/wearable platforms (note that we can recruit directly by sending MyChart messages to patients within UCSF Health who match inclusion/exclusion criteria based on a SQL query, making recruitment very streamlined and simple), and (5) running participatory co-design sessions with patients and clinicians to glean HCI insights into human-centered AI lessons relevant to the development of the digital diagnostics and digital interventions. Optionally, the candidate may also use the collected multimodal datasets and build machine learning models with the data.

The postdoctoral scholar will disseminate their findings through first-author research papers in journals and/or conferences in addition to public/community engagement. The postdoctoral scholar will also receive mentorship in activities such as writing their own fellowship grants, running their own research lab (through mentorship of their own team of UC Berkeley undergraduates and UCSF master's students), and transitioning into research independence.

The initial appointment will be for 2 years, with an opportunity for extension pending performance and availability of funds.

UC San Francisco seeks candidates whose experience, teaching, research, or community service has prepared them to contribute to our commitment to diversity and excellence. 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.

This is a hybrid or remote position. Hybrid is preferred, but remote options will be possible for exceptional candidates.

Job Requirements

Required Qualifications:

- Currently has or is in the process of obtaining a PhD in Human-Computer Interaction, Information Science, Biomedical Data Science, Health Informatics, Computational Precision Health, Health Data Science, Computer Science, or a related area
- Software development experience (either mobile or web is fine, with the ability to pick up new frameworks)
- Ability to engineer full-stack systems, picking up new APIs and other tools as needed for the job

- Experience with deployment of software ecosystems into cloud environments. The UCSF TECH Lab uses Amazon Web Services (AWS), so need to be comfortable working with or learning AWS
- First-authored publications at leading journals and/or conferences
- Effective communication and interpersonal skills
- Ability to communicate technical information to technical and non-technical personnel at various levels in the organization
- Self-motivated and works independently and as part of a team. Able to learn effectively and meet deadlines
- Demonstrated broad problem-solving skills

Optional Qualifications:

- Experience recruiting and engaging with participants for digital health studies
- Experience in Python for machine learning (deep learning)
- Experience writing IRB protocols
- Qualitative data analysis experience
- Interest in a career in either (1) entrepreneurship or (2) academia

How to Apply

Please email a cover letter describing your qualifications for the position and a current CV to: Stephanie.chuc@ucsf.edu

Questions about the position can be directed to: peter.washington@ucsf.edu

Applications received by June 5, 2026 will be given priority consideration.