54065 Postdoctoral Fellow in Technology-Enhanced Immersive Learning

Position Overview

The Simmons School of Education & Human Development at Southern Methodist University invites applications for Postdoctoral Fellow in Technology-Enhanced Immersive Learning (TEIL) in the TEIL cluster. The successful candidate will work under the supervision of Eric G. Bing, MD, PhD, MBA and Candace Walkington, PhD to advance the understanding of Virtual Reality and Generative AI for Education and Learning. This postdoctoral position is for 2 years (24 months) and begins June 1, 2025.

The TEIL cluster enhances SMU's internationally recognized strengths in data science, artificial intelligence, machine learning and learning analytics as applied to video game development, game-based and immersive learning, the use of immersive technologies for assessment, behavior change and social emotional learning, literacy, special education, bilingual/ESL education, urban education and STEM. Learn more at https://www.smu.edu/teil.

Research Responsibilities

The TEIL Postdoctoral Fellow will work on TEIL cluster projects and contribute to the success of the TEIL cluster by:

- Applying their understanding of TEIL to develop and enhance user experiences in immersive learning environments, including simulations for education, training, and skill development
- Designing and conducting studies to evaluate effectiveness and improve the design of TEIL applications
- Mentoring graduate and undergraduate students on TEIL research and development projects
- Leading conference presentations, journal publications, and grant proposal submissions

Primary Projects

The TEIL Postdoctoral Fellow will primarily support the following TEIL projects:

1. **VR-based De-escalation Training for Law Enforcement**, PI and Supervisor: Dr. Eric G. Bing
   This project leverages virtual reality simulations to develop, implement, and evaluate training programs that teach police officers de-escalation techniques through immersive, scenario-based experiences. The TEIL Postdoctoral Fellow will assist in designing learning experiences, analyzing qualitative and quantitative data from training sessions, and evaluating behavioral, cognitive and autonomic nervous system outcomes among participating officers.

2. **NSF Generative AI in STEM Education Project**, PI and Supervisor: Dr. Candace Walkington
   This multi-year NSF-funded project investigates how middle school mathematics teachers use generative AI to plan instruction and how these practices influence student learning outcomes. The TEIL Postdoctoral Fellow will work with an interdisciplinary team including experts in computer science and computer vision. The post-doc's focus will be educational research: analyzing extensive qualitative video data of teacher-AI interaction and millions of rows of student clickstream and assessment data, with the goal of linking teacher planning behaviors to student performance.

3. In addition, the Postdoctoral Fellow will pursue additional TEIL research in collaboration with other TEIL faculty to further the SMU research agenda.

4. Optional teaching opportunities for undergraduate and graduate courses may be available based on interest and program needs.

Qualifications

Minimum qualifications: Completed requirements for a doctoral or other terminal degree in a field of study related to Extended Reality and AI in Education, such as Learning Sciences, Educational Technology, Educational Psychology, Instructional Design, Interactive Media, STEM Education, Data Science or Human-Computer Interaction, or related field by August 1, 2025; excellent written and oral communication skills.

Preferred qualifications: completed Ph.D. in a field of study related to Extended Reality and AI in Education, such as Learning Sciences, Educational Technology, Educational Psychology, Instructional Design, Interactive Media, STEM Education, Data Science or Human-Computer Interaction or related field; interest in making significant contributions to graduate programs; research and/or creative scholarship which has led to publication, exhibition or dissemination in refereed journals, and/or national venues; experience mentoring culturally diverse students.

Application Process

Applicants are requested to submit the following electronically on Interfolio at https://apply.interfolio.com/166372

1. Cover letter detailing research and teaching experience
2. Curriculum vitae
3. Copies of representative scholarly publications
4. Names, affiliations, and contact information for three references

Review of applications will begin April 28, 2025. To ensure full consideration for the position, the application must be received by May 14, 2025, but the committee will continue to accept applications until the position is filled. The committee will notify applicants of its employment decisions after the position is filled. Hiring is contingent upon the satisfactory completion of a background check.

For questions about the search submission process or position, contact Dr. Eric G. Bing (ebing@smu.edu) or Dr. Candace Walkington (cwalkington@smu.edu).

SMU is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, sex, age, disability, genetic information, veteran status, sexual orientation, or gender identity and expression.