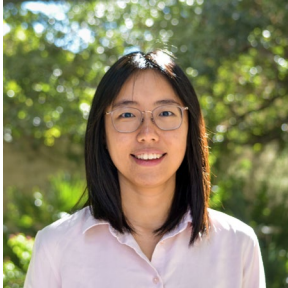


Faculty Candidate Seminar – Physical AI**Shuijing Liu**Postdoctoral Scholar
University of Texas-Austin

Thursday, February 5, 2026

Presentation: 10:30 A.M. – 11:30 A.M.

Q & A: 11:30 A.M. – 12:00 P.M.

MSEE 112

**Human-Robot Partnership: Collaboration,
Communication, and Continual Adaptation**

Abstract: Robots are entering our daily lives, from homes and offices to public spaces. When this happens, robots must move beyond tool-like roles and instead become our partners that can communicate and collaborate with us and adapt to ever-changing human environments. Toward this goal, by putting humans at the center of robot learning, my work has contributed to robust and adaptive learning algorithms that enable human-robot partnership in the wild. In this talk, I will present my work on in-the-wild learning and deployment of robot partners that (1) infer diverse human needs with foundation models, (2) plan robustly in crowded and cluttered environments with structured reasoning of interactions among agents, and (3) adapt to novel environments on the fly using minimal help from non-experts. Together, my work lays the foundation for human-centered robotics that address real human needs and operate in real-world human environments. I will conclude with future directions toward continual human-robot alignment and lifelong human-robot partnership.

Bio: Shuijing Liu is a postdoctoral scholar at The University of Texas at Austin, advised by Yuke Zhu, Peter Stone, and Joydeep Biswas. Her research lies at the intersection of robot learning and human-robot interaction, with a focus on developing capable and socially aware robot partners that improves productivity and enriches lives of people. She received her Ph.D. from the University of Illinois Urbana-Champaign in 2024, advised by Katie Driggs-Campbell. Shuijing was named an RSS Pioneer and a Rising Star in EECS. Her work was recognized as a Best Paper Award Finalist at CoRL 2023.