Tommy (Xiuqi) Zhu

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Research Summary

My research focuses on integrating multimodal large language models (MLLMs) into XR to:

- 1. Seamlessly interpret, understand, and respond to users' environments and needs in real-time, enabling XR to support complex, collaborative, and everyday multi-user tasks.
- 2. Transform interactive educational content into dynamic, personalized, and memorable simulation-based learning experiences through Al-driven, adaptive instruction.

Research Interests

Virtual Reality, Extended Reality, HCI, Educational Social Computing, Hybrid Communication, Conversational Agents, Teacher-Al Collaboration

Education

2023-2028 Ph.D. in Interdisciplinary Design and Media

(Expected) Northeastern University, Boston, MA

Advisor: Prof. Eileen McGivney

2019–2023 B.A. in Digital Media Arts

Communication University of China, Beijing

Advisor: Prof. Min Fan

Publications

* denotes equal contribution. "Xiuqi Zhu" and "Xiuqi Tommy Zhu" both refer to the same author.

Peer-reviewed Full Conference and Journal Publications

C.1 Xiuqi Zhu, Cenyi Wang, Zichun Guo, Yifan Zhao, Yang Jiao. (2023) Can You Move It?: The Design and Evaluate of Moving Shots in VR Sports Broadcast. IEEE ISMAR 2023. https://ieeexplore.ieee.org/abstract/document/10316354

Posters, Extended Abstracts, Workshop Papers and Technical Reports

- P.3 **Xiuqi Tommy Zhu**, Mingxin Cheng, Heidi Cheerman, Sheri Kiami, Leanne Chukoskie, Eileen McGivney. (2025) *Designing VR Simulation System for Clinical Communication Training with LLMs-Based Embodied Conversational Agents. CHI EA Late-Breaking Work 2025.* https://arxiv.org/abs/2503.01767
- P.2 **Xiuqi Zhu**, Min Fan, Zhuohao Wu, Jiayi Lu, Yukai Liu. (2023) *Co-Space: A Tangible System Supporting Social Attention and Social Behavioral Development through Embodied Play for Children with Autism Spectrum Disorder. IDC '23*. https://doi.org/10.1145/3585088.3593911
- P.1 **Xiuqi Zhu**, Jingyu Zhang, Tongyang Liu, Gang He. (2022) *An Initial Attempt to Build a Natural Sounds Library based on Heuristic Evaluation*. *HCII Poster 2022*. https://doi.org/10.1007/978-3-031-19679-9_90

Under-review Manuscripts, Working in Progress and Preparation

- U.1 Yixuan Li*, Shuai Wang*, Xiuqi Tommy Zhu, Rui Zhang, Yang Jiao. (2025) HaptiFab: A Wearable Toolkit Supports the Integration of Haptic Actuator and Fabric for Interdisciplinary Design. Work-in-progress
- U.2 Xiuqi Tommy Zhu, Ziyue Qiu, Ye Wei, Jianhao Wang, Yang Jiao. (2024) Understanding the Practice, Perception, and Challenge of Blind or Low Vision Students Learning through Accessible Technologies in Non-Inclusive 'Blind College'. Minor Revision in IJHCI. https: //arxiv.org/abs/2501.07736

Professional Experience

2024-Present Graduate Research Assistant

Northeastern University, with Prof. Eileen McGivney

2023-2024 Graduate Research Assistant

Northeastern University, with Prof. Dakuo Wang

2021–2023 Research Intern (Outstanding Top 5%)

The Future Lab, Tsinghua University, Beijing Mentor: Prof. Yang Jiao and Prof. Yingqing Xu

2022-2023 User Research Intern

Lark Design, ByteDance, Beijing

Designed and evaluated a People System (HR+Team Management) using mixed-method insights

2022 **Teaching Assistant**

Communication University of China

Fundamentals of Interaction Design, with Prof. Min Fan

Service

Conference ACM CHI 2025

Reviewer ACM CSCW 2024

ACM IDC (2023–2024)

ACM DIS 2024

ACM Chinese CHI (2023-2024)

Student ACM CHI 2024

Volunteer

Student Mentorship

2023-Present Yixuan Li (B.A. in Beijing Forestry University, now incoming Master in Tsinghua University)

2022–2023 Jiayi Lu (B.A. in Communication University of China)

2024 Feixue Han (M.S. in Northeastern University)

Languages

English Bilingual proficiency

Mandarin Native

Selected Awards

2022 Global Runner-up (\$4200)

2022 HONOR Talents Global Design Competition

Beijing University Student Animation Design Competition

Technical Skills

Programming C/C++, Python, Xcode, Unreal 5, Unity, SPSS

Languages

UX Skills Qualitative Research, Quantitative Research, Experiment Design, Data Analysis

Software

Design Figma, Adobe Suite, Tableau, Blender, Arduino