

## INTRODUCTION

I am Luyao Shen, a fourth-year Ph.D. candidate in the Computational Media and Arts Thrust at the Hong Kong University of Science and Technology (Guangzhou), advised by Prof. Mingming Fan (primary advisor) and Prof. Pan Hui (co-advisor). I expect to graduate in **July 2026**. My research focuses on **human–AI collaboration in design practices**, particularly how AI can support and enhance the workflows of designers. I also explore **collaborative interactions in virtual reality (VR)**, with a specific interest in two-person communication and collaboration in immersive environments.

EDUCATION

- **Hong Kong University of Science and Technology (Guangzhou)** Guangzhou  
*Computational Media and Arts Thrust; Doctor of Philosophy* Sep. 2022 – Present
  - **University of Science and Technology Beijing** Beijing  
*Department of Industrial Design; Master of Art* Sep. 2017 – Jan. 2020
  - **University of Science and Technology Beijing** Beijing  
*Department of Industrial Design; Bachelor of Engineering* Sep. 2013 – Jun. 2017

## JOURNAL ARTICLES

- **Standardizing the Evaluation of Usability Test Results: Criteria Development and Human-AI Collaborative Performance** (revised manuscript under review at IJHCI) Author list: Emily Kuang, Luyao Shen, Ehsan Jahangirzadeh Soure, Mingming Fan, Kristen Shinohara
  - **MultiUX: A Human-AI Collaborative Tool to Facilitate Multiple Usability Test Video Analyses** (revised manuscript under review at IJHCI) Author list: Luyao Shen, Qing Shi, Linjie Qiu, Shixu Zhou, Emily Kuang, Pan Hui, Mingming Fan
  - **Understanding How AI Integration Influences Reasoning Process of Design Iteration Decision-making** (manuscript to be resubmitted to Design Studies) Author list: Luyao Shen, Qing Shi, Emily Kuang, Lik-Hang Lee, Pan Hui, Mingming Fan
  - **Understanding and Designing Technology to Support Mentoring Functions in Chinese Design Teams** (manuscript under review at IJHCI) Author list: Luyao Shen, Zhongyue Zhang, Qianjie Wei, Lik-Hang Lee, Pan Hui, Mingming Fan
  - **Understanding Graphical User Interface Design of Human-AI Collaborative Tools: A Systematic Literature Review** (manuscript under review at CSUR) Author list: Luyao Shen, Xian Wang, Yunna Cai, Emily Kuang, Lik-Hang Lee, Pan Hui, Mingming Fan
  - **A Systematic Review of XR-Enabled Remote Human-Robot Interaction Systems** (accepted by CSUR) Author list: Xian Wang, Luyao Shen, Lik-Hang Lee
  - **TeamPortal: Exploring Virtual Reality Collaboration Through Shared and Manipulating Parallel Views** (accepted by TVCG) Author list: Xian Wang, Luyao Shen, Lei Chen, Mingming Fan, Lik-Hang Lee
  - **EmojiChat: Toward Designing Emoji-Driven Social Interaction in VR Museums** (accepted by IJHCI) Author list: Luyao Shen, Xian Wang, Sijia Li, Lik-Hang Lee, Mingming Fan, Pan Hui

## CONFERENCE ARTICLES

---

- **It Became My Buddy, But I'm Not Afraid to Disagree: A Multi-Session Study of UX Evaluators Collaborating with Conversational AI Assistants (second round at CHI)** Author list: Emily Kuang, Ehsan Jahangirzadeh Soure, **Luyao Shen**, Nitesh Goyal, Mingming Fan, Kristen Shinohara
- **A Dual-Stick Controller for Enhancing Raycasting Interactions with Virtual Objects (accepted by IEEE VR)** Author list: Nianlong Li, Tong Wu, Zhenxuan He, **Luyao Shen**, Tianren Luo, Teng Han, Boyu Gao, Yu Zhang, Liuxin Zhang, Feng Tian, Qianying Wang
- **Exploring the Impact of Artificial Intelligence-Generated Content(AIGC) Tools on Social Dynamics in UX Collaboration (accepted by DIS)** Author list: Ziyan Wang, **Luyao Shen**, Emily Kuang, Shumeng Zhang, Mingming Fan

## EXPERIENCE

---

- **Institute of Software, Chinese Academy of Sciences** Beijing  
*HCI Research Assistant* Sep 2019 - May 2021
  - **HapLinkage: Prototyping Haptic Proxies for Virtual Hand Tools Using Linkage Mechanism (accepted by UIST)**: Author list: Nianlong Li, Han-Jong Kim, **Luyao Shen**, Feng Tian, Teng Han, Xing-Dong Yang, Tek-Jin Nam
  - **Douleur: Creating Pain Sensation with Chemical Stimulant to Enhance User Experience in Virtual Reality (accepted by Ubicomp)**: Author list: Chutian Jiang, Yanjun Chen, Mingming Fan, Liuping Wang, **Luyao Shen**, Nianlong Li, Wei Sun, Yu Zhang, Feng Tian, Teng Han

## SKILLS

---

- **AI and human-AI collaboration:** prototype design, LLM integration and debugging
- **Virtual Reality:** 3D modeling and asset preparation, interaction design in VR