



EDUCATION

Zhejiang University College of Computer Science and Technology Ph.D. Candidate of Design Science	Mar 2023-Jun 2025
Zhejiang University College of Computer Science and Technology MD of Design Science	Sep 2020-Mar 2023
North China Electric Power University College of Mechanical Engineering BD of Industrial Design	Sep 2016-Jun 2020

RESEARCH INTEREST

Intuitive Human-computer Interaction

I explore natural and direct interaction modes, including gesture interaction, embodied interaction, and XR interaction. Aiming to improve the user experience, efficiency, and intuition through interaction mode innovation.

Interactive Human-AI Co-creation

I explore the mechanism of Human-AI communication and cooperation. I focus on user-centered interactive AI system, investigating the role, cooperation mode, and contribution type of AI agent in co-creation process.

Embodied & Generative System

I also focus on the combination of the two aforementioned directions. I integrate intuitive interaction with GenAI in creative work for efficiency enhancement and creativity support, such as “AR + GenAI” and “TUI + GenAI”.

PUBLICATION

Hongbo Zhang, Pei Chen*, Xuelong Xie, Zhaoqu Jiang, Zihong Zhou, and Lingyun Sun. “A Hybrid Prototype Method Combining Physical Models and Generative Artificial Intelligence to Support Creativity.” *ACM Transaction on Computer Human Interaction*, (2024)

Hongbo Zhang, Pei Chen*, Xuelong Xie, Chaoyi Lin, Lianyan Liu, Zhuoshu Li, Weitao You, and Lingyun Sun. “ProtoDreamer: A Mixed-prototype Tool Combining Physical Model and Generative AI to Support Conceptual Design.” *ACM Symposium on User Interface Software and Technology*, (2024)

Sun, Lingyun, Hongbo Zhang, Pei Chen*, Zhaoqu Jiang, Xuelong Xie, Zihong Zhou, Xuanhui Liu, and Xiaoyu Chen. “Elicitation and Evaluation of Hand-based Interaction Language for 3D Conceptual Design in Mixed Reality.” *International Journal of Human-Computer Studies*, (2024)

Huang, Jinghua, Hongbo Zhang*, Lujin Mao, Dongliang Zhang, Jianfeng Li, Tiancheng Ji, and Runze Han. "The effect of tablet computer configurations and touchscreen gestures on human biomechanics, performance, and subjective assessment." *International Journal of Human-Computer Interaction*, (2024)

Hongbo Zhang, Pei Chen*, Jingwen Yang, Yifei Wu, Zhaoqu Jiang, Xuelong Xie, Wutao You and Lingyun Sun. “IEDS: Exploring an Intelli-Embodied Design Space combining designer, AR, and GAI to Support Conceptual Design”. *International Journal of Human Computer Studies (IJHCS)*, [Under Review](#)

Hongbo Zhang, Pei Chen*, Xuelong Xie, Zhaoqu Jiang, Yifei Wu, Zejian Li, Xiaoyu Chen and Lingyun Sun. “FusionProtor: A Mixed-Prototype Tool for Component-level Physical-to-Virtual Transition and Simulation”. *ACM CHI Conference on Human Factors in Computing Systems (CHI'25)*, [Under Review](#)

Zhuoshu Li, Pei Chen, Hongbo Zhang*, Yexinrui Wu, Xuanhui Liu & Lingyun Sun. “Painting++: Human-Computer Collaborative Painting in VR with Multisensory Interaction”. *Displays*, [Under Review](#)

*the corresponding auuthor

■ INTERNSHIP EXPERIENCE

Tencent Group Tencent Cloud AI Product Center User Experience Designer for 14 months	May 2022-Jun 2023
Tik Tok Group Cloud Product Center User Experience Designer for 5 months	Feb 2021-Jun 2021
Alibaba Group Alipay Design Center User Experience Designer for 4 months	Sep 2020-Dec 2020

■ DESIGN DOMAIN & PROJECT

User Experience Design | User Interface Design | Industrial Design | Service Design | Speculative Design | Visual Design

[See my design works in My Portfolio](#)

■ AWARD & HONOR

National Scholarship ×3 Granted Patents ×4 Excellent Graduated Student ×3 iF Design Talent Award A Design Bronze Award

Lasted Updated: Sep, 2024