

HAOHAN WANG

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RESEARCH PROFILE

Research Interests: Intelligent information design, human-computer interaction, VR/XR, and their applications in industrial equipment, education, healthcare, and design.

Research Overview: Interdisciplinary background in industrial design and computer science (Innovative multimedia entertainment), with a focus on collecting, analyzing, and transforming multimodal user-experience data using emerging technologies to support user exploration, knowledge understanding, and design decision-making across contexts. Research outputs include publications at CHI and HCII, with related work currently under review at IEEE VR.

EDUCATION

2024.08–2025.11 MSc in Innovative Multimedia Entertainment | School of Design, The Hong Kong Polytechnic University

- GPA: 3.48/4.3 (Grade: Good). Selected coursework: Multimedia Entertainment Theory and Practice (A), Creative Programming for Designers and Artists (A), Independent Study in Multimedia Entertainment (A-).
- Capstone project addressed low user engagement and limited clinical accessibility in interventions for smartphone addiction. Designed and evaluated a serious game using breathing biofeedback. Preliminary findings indicated good acceptability and intervention potential among non-clinical young adults, supporting a low-barrier, high-engagement digital therapeutics approach.

2020.09–2024.06 B.Eng. in Industrial Design | School of Design and Art, Hunan University

- GPA: 3.58/4.0; ranked 24/97 (top 25%). Awarded Outstanding Undergraduate Graduate of Hunan University, university-level individual scholarships for two consecutive years, and a Gold Award in the Hunan Province “Internet+” College Student Innovation and Entrepreneurship Competition.
- Selected coursework: Principles and Design of Mechanisms (95); Usability Evaluation (92); Intelligent Design Methods (91); Design Research Methods (89); Introduction to Computing and Artificial Intelligence (89).

PUBLICATIONS & MANUSCRIPTS

- Mingming Wang, Henry Been-Lirn Duh, Xiaoyu Zhang, Yihan Mei, **Haohan Wang**, Haiyan Jiang, and Zhibin Zhou. 2026. “Capture Your Experience at This Moment”: Collecting Concurrent User Experience Data in Immersive Virtual Environment. In Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI '26). Association for Computing Machinery, New York, NY, USA, Article 252, 1–25. <https://doi.org/10.1145/3772318.3790362>.
- Xinyan Zhang, **Haohan Wang**. (2024). User Preferences for Icon Design Styles and Their Associations with Personality and Demographic. HCI International 2024 Posters. HCII 2024. Communications in Computer and Information Science, vol. 2114. Springer, Cham. https://doi.org/10.1007/978-3-031-61932-8_28.
- Mingming Wang, Chuteng Huang, **Haohan Wang**, Haiyan Jiang, Henry Been-Lirn Duh. 2026. DualGuide: Integrating Proactive and Passive AI Tour Guidance to Enhance Visitor Experience in Virtual Museums. IEEE VR, **Under Review**.

RESEARCH EXPERIENCE

2024.12–2025.12 Integrating Proactive and Passive AI Tour Guidance to Enhance Visitor Experience in Virtual Museums | Research Centre for Cultural and Art Technology, The Hong Kong Polytechnic University

- Conducted a literature review and proposed the hypothesis that a proactive prompt system can enhance user immersion and engagement in virtual museums by understanding user needs and delivering personalized interactions; formulated corresponding research questions.
- Independently designed and implemented Study 1, building two benchmark systems—fully proactive versus fully passive—and performed a comparative evaluation to analyze their differences and applicability across different visit stages. The findings provide empirical evidence and design implications for stage-adaptive, mixed proactive-passive AI-guided systems in both virtual and physical museums.

2025.08–2025.10 Concurrent User-Experience Data Collection in Immersive Environments | The Hong Kong Polytechnic University

- Contributed to research on concurrent user-experience data collection in immersive virtual environments, including participant studies and data analysis. The work was published at CHI 2026.

2023.12–2024.12 LeNS China Sustainable Design Learning Platform Redesign and Development | Hunan University & Tsinghua University

- Led cognitive walkthroughs, user feedback analysis, and information architecture optimization for the official website, developing a redesign plan covering visual language and interaction patterns.

- Independently completed the full C-end UI/UX design and the logical framework for the B-end management system, while coordinating closely with developers throughout the launch process (<http://lenscn.net/>). The project involved systematically integrating and curating sustainable design methods, tools, courses, and high-quality design works; incorporating user-generated content (UGC) into the online learning platform; and enhancing overall user experience.

PROFESSIONAL EXPERIENCE

- 2026.04–Present** **Assistant Engineer** | Environmental Test Center, Southwest Technology and Engineering Research Institute
- Participated in the proposal and feasibility assessment of two national-level research projects, including drafting sections such as literature review and research background in the project proposals; assisted engineers in model construction and simulation.
 - Supported test-device design, environmental data collection, and related research; developed practical experience in experimental apparatus, data acquisition, simulation analysis, and interdisciplinary collaboration.
- 2025.11–2026.04** **Managing Editor** | Editorial Office of Packaging Engineering, Southwest Technology and Engineering Research Institute
- Participated in interdisciplinary topic selection and column content positioning; independently managed the call-for-papers and peer-review coordination for 3 column issues, ensuring academic quality and on-schedule publication.
 - Collaborated with over 100 university faculty, industry experts, and contributors; contributed to the preparation and on-site coordination of an academic conference with 8,000 attendees; gained substantial experience in academic publishing and research-team communication.
- 2025.08–2025.11** **Editorial Assistant (Intern)** | Editorial Office of Industrial & Engineering Design, Southwest Technology and Engineering Research Institute
- Assisted in manuscript initial screening, editorial workflow coordination, and database content organization; developed in-depth knowledge of paper submission standards, peer-review procedures, and publication processes in the fields of design studies and engineering design.

PROJECT EXPERIENCE

- 2023.08–2024.06** **Product Identity (PI) Design Research for Vatti Range Hood** | University–Industry Collaboration
- Conducted market and literature research on Range Hood, benchmarking Vatti and competing products. Analyzed industrial-design, UI, and UX elements and produced deliverables including product-identity design guideline research, CMFP research, interaction-interface design research, user cognition and aesthetic preference research, range hood design trend research, and annual consumer lifestyle research.
 - Co-led a workshop with Vatti designers to redefine design concepts and the brand-value framework, subsequently developing multiple product-identity design proposals.
- 2022.06–2022.08** **Rural Children’s Aesthetic Education Public-Welfare Project** | Provincial College Student Innovation & Entrepreneurship Project
- Contributed to the online workshop and service-model design for “Children’s Picture Books · Introduction to Chinese Rural Culture,” developing teacher-training and public-service plans for children’s aesthetic education. The project received a Gold Award in the Hunan Province “Internet+” College Student Innovation and Entrepreneurship Competition.

HONORS & SKILLS

- Honors:** Second Prize, 2024 HKDADC Hong Kong Digital Art Design Competition; Gold Award, 8th Hunan Province “Internet+” College Student Innovation and Entrepreneurship Competition; Outstanding Undergraduate Graduate of Hunan University.
- Research Methods:** Qualitative research methods: user interviews, think-aloud method, focus groups ; Quantitative research methods: experimental studies, questionnaires and scales ; Prototype system evaluation methods: usability testing, A/B testing.
- Technical Skills:** Unity, C#, Python, MATLAB, UG, Blender, Figma, Adobe Creative Suite; experience in VR prototyping, interactive prototype development, and data-visualization programming.