

SHIHAN FU

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Research Interest: Human-Computer Interaction, Accessibility, Social Computing, VR/AR, Quantitative and Qualitative Study

EDUCATION

The Hong Kong University of Science and Technology (Guangzhou), China

July 2022 - June 2024

Master of Philosophy | Research with Prof. Mingming Fan

Major: Computational Media and Arts

Zhejiang University, China

July 2017 - June 2022

Bachelor of Arts | GPA: 3.60/4.0

Major: Russian Language and Literature

RESEARCH EXPERIENCE

Meditation VR System Development

Apr 2023 - Jun 2023

Advised by Prof. Wei Zeng

- Developed a user-friendly VR meditation system using Unity 3D and C#, aiming to provide an immersive experience for novice meditators.
- Conducted a pilot study to assess the effectiveness of the VR meditation system in promoting relaxation and mindfulness.
- Authored a research paper detailing the development process, study methodology, and pilot study findings. The paper was published in the proceedings of VINCI2023.

Olfactory Display Hardware Development

Apr 2023 - May 2023

Advised by Prof. Mingming Fan

- Designed and built a prototype of an olfactory display using Arduino to enhance user experiences in VR.
- Implemented the olfactory display prototype, providing users with an immersive art appreciation process in a VR art museum.
- Contributed to the hardware development section of a research paper published in the proceedings of VINCI2023.

System Design Refinement and User Study

Mar 2023 - July 2023

Advised by Prof. Mingming Fan

- Conducted research on the makeup and removal process of Xiqu performers and designed a comprehensive study.
- Defined the problem, designed questionnaires, and conducted in-depth interviews using participatory design methods to develop two system prototypes. Analyzed the results to evaluate the usability of the systems.
- Co-first author on a paper submitted to ChineseCHI2024 and second author on a paper submitted to CHI 2024. Both papers are currently under review.

Research on Adult Literacy Livestreamer Experience

Jun 2023 - Aug 2023

Advised by Prof. Mingming Fan

- Defined the research question and objectives, focusing on exploring the experience of adult literacy livestreamers.
- Conducted ethnographic observations and semi-structured interviews with participants, organizing and analyzing interview transcripts to extract insights and themes. Employed open coding techniques to identify patterns and ideas.
- Authored and prepared a manuscript for submission to the CHI2024 conference.

Research on Team-AI Collaboration

Aug 2023 - Sep 2023

Advised by Prof. Wei Zeng

- Defined the research question and objectives, focusing on the intersection of AI, team, and design.
- Designed a research methodology combining autobiographical research and semi-structured interviews to investigate the topic. Organized and analyzed interview transcripts, extracting key themes and patterns.
- Authored a research article providing an analysis of the AI-design relationship and prepared the manuscript for submission to the CHI2024 conference.

PUBLICATIONS

- 1) **Shihan Fu**, Liangliang Qiang and Wei Zeng*, LOOP Meditation: Enhancing Novice's VR Meditation Experience with Physical Movement, *VINCI 2023*, <https://doi.org/10.1145/3615522.3615538>
- 2) Shumeng Zhang, Ziyang Wang, You Zhou, Hao Cui, **Shihan Fu**, Zeyu Wang and Mingming Fan*, OdorV-Art: An Initial Exploration of An Olfactory Intervention for Appreciating Style Information of Artworks in Virtual Museum, *VINCI 2023*, <https://doi.org/10.1145/3615522.3615544>
- 3) Zeyu Xiong#, **Shihan Fu**# and Mingming Fan*, OperARTistry: AR-based Application for Chinese Traditional Opera (Xiqu) Makeup Tutorials, *Chinese CHI 2024*, (Under Review)
- 4) **Shihan Fu**, Jianhao Chen, Emily Kuang and Mingming Fan*, Bridging the Literacy Gap for Adults: Understanding How Streamers Teach Adult Literacy on Livestreaming Platforms, *CHI 2024*, (Under Review)
- 5) **Shihan Fu**#, Yuao Wang#, Liangliang Qiang, Kaiyin Zhou, Hongye Gao and Wei Zeng*, "Teaming but not teamed": Reflections on AI Collaboration with an Interdisciplinary Team in Sculpture Design Practice, *CHI 2024*, (Under Review)
- 6) Zeyu Xiong, **Shihan Fu**, Yanying Zhu, Chengqing Zhu, Xiaojuan Ma and Mingming Fan*, "It is hard to remove from my eye": Design Makeup Residue Visualization System for Chinese Traditional Opera (Xiqu) Performers, *CHI 2024*, (Under Review)
- 7) Jiaan Li, Yulu Hu, **Shihan Fu**, Zhiqing Wu, Pan Hui, and Mingming Fan*, Talk 'Til You Drop: Exploring the Opportunity of Large Language Models (LLMs) in Empowering Retirees, *CHI 2024*, (Under Review)

SKILLS

System Design and Development

- Familiar with developing virtual reality (VR) and augmented reality (AR) applications using Unity 3D and C#.

User Research

- Skilled in designing research methodologies, conducting semi-structured interviews, and employing participatory design methods.

Academic Writing

- Experienced in writing research papers and preparing submissions for conferences, with the ability to provide research objectives, methods, and findings effectively.

Team Collaboration

- Effective team worker, capable of communicating, coordinating, and sharing progress with supervisors and team members to achieve research goals.