Han Xiao

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Personal Website

Education

Eindhoven University of Technology | Master Human-Technology Interaction | 2023.9 – 2026.2

- Major: Human-Technology Interaction
- Supervised by Dr. Max V. Birk

Queen Mary University of London | Bachelor of Engineering | 2018.9-2022.6

- Major: Telecommunication Engineering with Management

- Upper Second-Class Honours

- Joint programme with Beijing University of Posts and Telecommunications

Publication

Xuhai Xu, Tianyuan Zou, Han Xiao, Yanzhang Li, Ruolin Wang, Tianyi Yuan, Yuntao Wang, Yuanchun Shi, Jennifer Mankoff, and Anind K Dey. 2022. TypeOut: Leveraging Just-in-Time Self-Affirmation for Smartphone Overuse Reduction. In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI '22). Association for Computing Machinery, New York, NY, USA, Article 442, 1–17.https://doi.org/10.1145/3491102.3517476

Ashwin Ram, Han Xiao, Shengdong Zhao, and Chi-Wing Fu. 2023. VidAdapter: Adapting Blackboard-Style Videos for Ubiquitous Viewing. Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. 7, 3, Article 119 (September 2023), 19 pages. https://doi.org/10.1145/3610928

Work Experiences

Hong Kong Polytechnic University | Research Assistant | 2023.3 – 2023.8

- Worked as a research assistant under the guidance of Dr. Li Richard Chen, who led a project in partnership with NGOs in Hong Kong. The project aimed to enhance the cognitive abilities and living conditions of senior citizens in nursing homes through a game-based planting system. I used Raspberry Pi and an E-Ink screen to develop an MR application that stimulated the cognitive functions of senior citizens.

National University of Singapore | Remote research Intern| 2021.10 – 2023.3

- As part of the LSVP-Tool project, I worked with Dr. Ashwin Ram from the NUS-HCI Lab to create a web-based tool that can modify educational videos for HMD devices such as HoloLens. This tool allows users to learn while walking by adjusting the video content to their environment. We have submitted our work to IMWUT 2022 and are currently conducting further research on this project.

Academic Services

Reviewer – CHI (2024), WWW (2024), CH-CHI (2023)

Research Experiences

TypeOut: Leveraging Just-in-Time Self-Affirmation for Smartphone Overuse Reduction (2021 ACCESS COMPUTING SUMMER PROGRAM) 2021.4-2021.9

- Worked with Dr. Xuhai Xu on a large-scale study with more than 100 participants over 70 days. The study focused on smartphone usage behaviour change with persuasive intervention. The research has been accepted by the CHI 2022 conference, a leading venue for human-computer interaction.

Just-In-Time Adaptive Interventions for Smartphone Overuse (2022 ACCESS COMPUTING SUMMER PROGRAM) 2022.4-Present

- Worked closely with Dr. Xuhai Xu and Dr. Adiba Orzikulova on the follow-up project of our previous work at ACSP 2021, where we proposed a novel Machine Learning model to analyze and optimize smartphone use behaviour. Currently, we have conducted the user study and preparing to submit our work to CHI 2024,

Physically Plausible Interactions in XR Literature Review 2022.5-2022.9

- Participated in a literature review project with Dr. Kangsoo Kim, focusing on various interaction methods in the XR environment. We comprehensively reviewed the literature and classified the interaction methods based on their physical plausibility in XR. We also discussed the advantages and challenges of each category and provided some examples of applications.

A Novel Speech Interaction Method with an Electronic Whiteboard 2021.10-2022.5

- Collaborated with Professor Can Liu on a project that explores how "speech bubble" can enhance the quality of speech interaction. The project provides an interactive white-board platform that allows users to record, retrieve and emphasize their speech and discussion.

Android-Based AR Video Recording and Processing Tool 2021.7-2022.5

- In collaboration with Professor Yuntao Wang, aimed to enhance the communication of patient information among medical professionals by creating a video with interactive depth data. The video was generated using ARCore, which captured depth data from ToF sensors and multiple cameras, and allowed users to manipulate the depth perception of the scene.

Android-Based Haptic Navigation System for Visually Impaired People 2021.1-2021.5

- As the beginning of my research in the field of HCI, I worked with Professor Yuntao Wang on developing a haptic interactive navigation system for visually impaired people. The system runs on Android devices and utilizes various sensors, such as the Earth Magnetic sensor, to provide feedback and guidance.