Shengxin Li

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CONTACT INFORMATION School of Information Science and Technology

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RESEARCH **INTERESTS**

Human-Computer Interaction (HCI), Inclusive Design, Accessibility, Creativity Support,

Human-AI Collaboration, Data Visualization, Social Computing

EDUCATION

Shanghai Tech University, Shanghai, China

B.Eng. in Computer Science (Major), Interaction Design (Minor)

Sept. 2021 - Jun. 2025 (expected)

Advisor: Quan Li GPA: 3.56/4.0 (Until Sept. 2024), Ranked First 34%

ACADEMIC EXPERIENCE

Shanghai Tech University, Shanghai, China

Undergraduate Research Assistant (Advisor: Quan Li)

May. 2023 - Present

Participate in multiple research projects, establishing a solid foundation for HCI research.

Please see Papers in Preparation for the outcome.

Papers in **PREPARATION**

Yuchen Wu, Shengxin Li, Shizhen Zhang, Xingbo Wang, Quan Li. *Trinity*: Synchronizing Verbal, Nonverbal, and Visual Channels to Support Academic Oral Presentation Delivery.

To be appear · Full Paper

- Academic Oral Presentation allows students to express ideas and present research findings. However, students often face the challenge of integrating verbal, nonverbal and visual elements into the presentation.
- Based on a need-finding survey, a design study and an expert interview, we proposed Trinity, a hybrid delivery support system that provides guidance for multichannel delivery on-the-fly.
- We conducted a controlled between-subject user study to investigate the usability, effectiveness, interaction, influence, trust and collaboration of *Trinity*.

Longfei Chen*, Shengxin Li*, Ziang Li, Quan Li. DancingBoard: Streamlining the Creation of Motion Comics to Enhance Narratives.

Under Review · Full Paper

- Motion Comic, a form of animation that appropriates an existing comic book into a screenbased animated narrative, proposes challenges for amateur creators as they lack proficiency with professional creation tools.
- We conducted (1) a formative study to identify challenges faced by amateurs and (2) a review of the Motion Comics design space. Based on these results, we developed DancingBoard, an integrated authoring tool streamlines motion comic creation for amateur creators.
- We evaluated DancingBoard's usability and the outcome's efficiency in conveying the story through two user studies and semi-structured interviews.

Yuchen Wu, Shizhen Zhang, Shengxin Li, Qian Zhu, Quan Li. UPinch: Enabling Unaligned Gaze-Hand Coordination for Selection in 3D Environments.

Under Review · Full Paper

- Interaction techniques in virtual environments (such as Mixed Reality) necessitate <u>Gaze-Hand</u> Alignment, which requires gaze fixation and hand selection on the same target at the same time. However, people's gaze-hand behaviour in real world is often unaligned.
- We proposed **UPinch**, a gaze-hand based selection technique that adapts the inherent gazehand coordination observed in human reach-to-grasp process to 3D environments.
- We conducted a series of cross-reality experiments comparing UPinch to Gaze + Pinch, Gaze + Handray and Reality, identifying their gaze-hand characteristics in diverse tasks.

Shengxin Li, Someone Else. ADHD Support?.

In Progress

• Still need ChenDian. [TO BE DONE]

COURSE PROJECTS

Jiahe Dong*, **Shengxin Li***. *What a witty comment!* Identify Clever Comments in Online Media Platforms. *Data Mining* · 2024 Spring

• Comments with *cleverness* can make positive contributions to the community atmosphere. We established a framework for evaluating the cleverness of a given comment from online media platforms, and implemented an BERT-based model applying the framework.

Shengxin Li, Shizhen Zhang. Heating System Simulation and Interaction.

Environment Simulation and Interaction · 2023 Fall

• To propose a more efficient policy for centralized heating, we developed an Deep Learning model for simulating the room environment, and applied multiple Reinforcement Learning algorithms on this model.

Yutao Ming*, **Shengxin Li***, Wenxuan Li*, Xiaotian Zhao*, Haiyu Song*. *ComfortaBot*: a ChatGPT-Based Customized Multimodal Interactive Accompany System.

Human-Computer Interaction · 2023 Spring

Addressing the need for accompany when people are undergoing a hard time, we proposed
Comfortabot, a GPT-Based chatbot capturing user's current status and providing companion ship while avoiding limitations of human interaction such as social costs and privacy concern.

Shengxin Li*, Shizhen Zhang*, Yuxiao Wu*. Epidemiology Dissemination for Children. *User Experience and Innovative Design* · 2023 Spring

• Understanding the pandemic is challenging for children. We designed an Interaction Video to help them learn about epidemiology considering their interests and receptivity.

Shengxin Li*, Huaqiu Wang*, Kecheng Ye*, Shizhen Zhang*. Shanghai COVID-19 Pandemic Visual Analysis System.

Data Visualization · 2022 Spring

• We analyzed the Shanghai 2022 COVID-19 pandemic data, and developed a visual analysis system to show the development of the outbreak on a daily basis.

SERVICES

Shanghai Tech University, Shanghai, China

Teaching Assistant

• Studio 3: Interactive Design (with lab)

Spring 2023, 2024

Human Factors & Ergonomics

Fall 2023

Human-Computer Interaction

Spring 2024

SKILLS

Computer Science: HCI, AI&ML, Web Programming, Application Development, Data Visualization, Hardware Programming, Data Mining.

Design: Human-Centered Design, Interaction Design & Prototyping, Graphic Design, Video Editing, 3D Modeling.

HCI Research: Quantitative & Qualitative Research, User Study, Interview, Iterative Design.

Softwares: Figma, Adobe Illustrator, Adobe PS, Adobe Pr, GraphPad Prism, Blender.

Programming: Python (Basics, DS Libraries & PyTorch), C/C++, Frontend (JavaScript, Vue, HTML, CSS), Arduino C++, SQL, Kotlin (Android), Assembly (RISC-V), Matlab.

Languages: Chinese (Mandarin; native), English (proficient, TOEFL 105/120), Japanese (beginner). Visualization, LATEX.