

Sen Zhang

202, Unit 1, Building 1, Binjiang Cuiyu Garden, Jinghu District, Wuhu, Anhui, China

+86 18154016962 | Sen.Zhang22@student.xjtu.edu.cn | July 29th, 2004

Education

Xi'an Jiaotong-Liverpool University

BSc Information and Computing Science

- GPA: 3.75/4.0 (First Class Honours Expected, UK Education System)

Suzhou, China

Sep 2022 - Jun 2026

Achievements

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| 2025 | CSDN 700,000 views and rank of 12,000(More than 95%), (Global Level) | Internet |
| 2025 | Overwatch Theme Fan Skin Design Competition rank 39(39/211), (Global Level) | Internet |
| 2024 | University Academic Achievement Award, (University Level) | China |
| 2023 | China Undergraduate Mathematical Contest in Modeling: Third prize in Jiangsu Province of Undergraduate Group, (Provincial Level) | China |

Publications

JOURNAL ARTICLES

- [J1] Reevaluating the Gaze Cursor in Virtual Reality: A Comparative Analysis of Cursor Visibility, Confirmation Mechanisms, and Task Paradigms
Yushi Wei, Rongkai Shi, **Zhang, Sen**, Anil Ufuk Batmaz, Pan Hui, Hai-Ning Liang
IEEE Transactions on Visualization and Computer Graphics pp. 1-13. 2025 DOI: 10.1109/TVCG.2025.3622042.
- [J2] Optimal Raycast Selection Feedback in Virtual Reality for Older Adults: A Design and Analysis Study
Yushi Wei, **Zhang, Sen**, Zeju Zheng, Rongkai Shi, Mingming Fan, Hai-Ning Liang
IEEE Transactions on Visualization and Computer Graphics. 2025. (Under Review – Major Revision).
- [J3] How Should the Real World Look in VR? Investigating Real vs. Digital Views for Interaction
Zixuan Guo, Jia Zhang, **Zhang, Sen**, Tingjie Wan, Yue Li, BoYu Gao, Xubo Yang, Hai-Ning Liang
IEEE Transactions on Visualization and Computer Graphics. 2025. (Under Review).
- [J4] Assessing Arrival Orientation Control for Point & Select Teleportation in Complex Virtual Environments
Tingjie Wan, Yunxin Xu, Jia Zhang, **Zhang, Sen**, Jianbin Song, Zixuan Guo, Lingyun Yu, Hai-Ning Liang, BoYu Gao
IEEE Transactions on Visualization and Computer Graphics. 2025. (Under Review).
- [J5] Latency Governs Efficiency, Representation Modulates Experience: Detachment Testing of Latency and Effector Representation in VR Teleoperation
Fangtao Zhao, **Zhang, Sen**, Hai-Ning Liang
IEEE Transactions on Visualization and Computer Graphics. 2025. (Under Review).
- [J6] D-Model: Understanding the Effect of Expected Delays in Moving Target Selection in VR
Yushi Wei, **Zhang, Sen**, Rongkai Shi, Huawei Tu, Jin Huang, Pan Hui, Hai-Ning Liang
International Journal of Human-Computer Interaction. 2025. (Under Review – Minor Revision).

CONFERENCE PROCEEDINGS

- [C1] FrameBeats: A Prototype for Composing Sound Effects for Visual Input
Zhang, Sen, Chengyang Song, Lingyun Yu
Proceedings of the 12th China Visualization and Visual Analytics Conference (ChinaVis 2025), 2025, Hangzhou, China .
- [C2] RayFlex: Inducing Weight Perception through Raycast Pseudo-Haptics in Virtual Reality
Yushi Wei, **Zhang, Sen**, Rongkai Shi, Simon Fong, Pan Hui, Hai-Ning Liang
Proceedings of the 33rd IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR), 2026, Daegu, South Korea (Accepted, to appear).

Research and Work Experience

Research Assistant

FIT-AWE Lab | The Hong Kong University of Science and Technology (Guangzhou)

Guangzhou, China

Supervisor: Prof. Hai-Ning Liang

Aug. 2025 - Present

Responsibility: Developer & Experiment Administrator & Interaction Designer [J1, J2, J4, J5, C2].

Research Assistant

VIIS Lab | Xi'an Jiaotong-Liverpool University

Suzhou, China

Supervisor: Prof. Lingyun Yu

Nov. 2024 - Present

Responsibility: Developer & Experiment Administrator & Interaction Designer [C1, J4].

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| Card Designer, Programmer, Tester | <i>Shanghai, China</i> |
| ZeroCastle Game Studio | Sep. 2024 - Present |
| Responsibility: Designed and implemented gameplay mechanics for <i>KungFu Card</i> , and conducted systematic validation and testing. | |
| Research Assistant | <i>Suzhou, China</i> |
| X-CHI Lab Xi'an Jiaotong-Liverpool University | Jul. 2024 - Sep. 2024 |
| Supervisor: Prof. Hai-Ning Liang | |
| Responsibility: Developer & Experiment Administrator [J3, J6]. | |
| Research Assistant | <i>Suzhou, China</i> |
| Principal Language Lecturer Xi'an Jiaotong-Liverpool University | Jul. 2023 - Apr. 2024 |
| Supervisor: Prof. Airong Wang | |
| Responsibility: Data processing and corpus annotation for large-scale analysis of online university course communication. | |
| Student Lecturer | <i>Suzhou, China</i> |
| Xi'an Jiaotong-Liverpool University | Sep. 2023 - Nov. 2023 |
| Responsibility: Delivered instructional sessions for the course <i>Introduction to Apple Products</i> , covering the design principles, functionalities, and usage scenarios of major Apple devices. | |

Selected Projects

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|---|-------------------------|
| RayFlex: Inducing Weight Perception through Raycast Pseudo-Haptics in Virtual Reality | <i>Guangzhou, China</i> |
| FIT-AWE Lab | Apr. 2025 - Jun. 2025 |
| <ul style="list-style-type: none"> Design a system called Rayflex to help users feel the weight of objects in the virtual world through visual displacement and dynamic ray deformation. Develop the corresponding system and design three related scenarios to evaluate this system, including ideal situation and practical application. | |
| Reevaluating the Gaze Cursor in Virtual Reality: A Comparative Analysis of Cursor Visibility, Confirmation Mechanisms, and Task Paradigms | <i>Guangzhou, China</i> |
| FIT-AWE Lab | Dec. 2024 - Feb. 2025 |
| <ul style="list-style-type: none"> Design three confirmation methods including air tap, blinding, and dwell based on Fitts' Law to complete the selection task. Develop these three methods and two experiment systems including pointing selection task and pursuit task. Complete and analyze the experimental results, providing eight cursor design suggestions for selecting and tracking tasks | |

Skills/Hobbies

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|---------------|--|
| Codes: | Java, JavaScript, Python, C#, C++/C, SQL, Swift |
| Tools: | Unity, Blender, Latex, Notion, Git |
| Games: | Be familiar with nearly all kinds of games (RPG, FTG, RTS, FPS, MOBA, Sandbox, Simulation, etc.) |

Appendix

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| Portfolio | https://sensenharrison.github.io/ |
| GitHub | https://github.com/ |
| CSDN | https://blog.csdn.net/sensen_kiss?spm=1000.2115.3001.5343 |
| Game | https://store.steampowered.com/app/3340780/_/ |

References available upon request.