Jiayi Zhou

The Hong Kong University of Science and Technology
+852 5958 0534 | jzhoudp@connect.ust.hk | Website

Education

The Hong Kong University of Science and Technology — Hong Kong, China
Ph.D. Student, with Prof. Huamin Qu, at HKUST VisLab — *Sept. 2024 – present*

Zhejiang University — Hangzhou, China
B.Eng. in Industrial Design — *Sept. 2020 – Jun. 2024*
GPA: Overall 3.94/4.00

Research Experience

Interactive Data Group (IDG), Zhejiang University — Hangzhou, China
Research Assistant, Advisor: Prof. Yingcai Wu and Prof. Tan Tang — *Mar. 2022 – June. 2024*

- **Understanding Nonlinear Collaboration between Human and AI Agents: A Co-design Framework for Creative Design**
  - Conducted a formative study to investigate the co-design process between humans and formulated a set of guidelines for human-AI co-design frameworks.
  - Proposed a human-AI co-design framework and developed a proof-of-concept prototype.
  - Conducted a comparative study to understand our framework and demonstrate the usability of the prototype.
- **Rigel: Transforming Tabular Data By Declarative Mapping**
  - Assisted in system design, optimization, and evaluation of Rigel, an expressive and user-friendly data transformation system that addresses the disambiguation and exploration issues based on the declarative mapping approach.
  - Proofread the paper and revised figures in the paper.
- **A Comparative Study on Fixed-order Event Sequence Visualizations: Gantt, Extended Gantt, and Stringline Charts**
  - Assisted in conducting two experiments to evaluate the effectiveness of Gantt charts, extended Gantt charts, and stringline charts in visualizing scheduled event sequence data.
  - Assisted in summarizing design suggestions for choosing appropriate charts.
- **An Investigation into the Art of Scrolling**
  - Assisted in summarizing several design dimensions of scrollytelling by analyzing existing examples.
  - Proofread the paper and revised figures in the paper.

Guanyun Lab, Zhejiang University — Hangzhou, China
Research Assistant, Advisor: Prof. Guanyun Wang — *Oct. 2021 – Mar. 2022*

- **Shoes++: A Smart Detachable Sole for Social Foot-to-foot Interaction**
  - Provided a comprehensive input vocabulary of foot-to-foot gestures, which was informed by a focus group co-design.
  - Prototyped an IMU-mounted sole that can easily adapt to various shapes of shoes, enabling 'walk up and use' of our system in most social situations.
  - Validated the wearability of Shoes++ in a daily work setting and summarized findings to guide future work.

Publications and Manuscripts

[1] Junxiu Tang, **Jiayi Zhou**, Yifang Wang, Xinhuan Shu, Peiquan Xia, Xiaojiao Chen, Tan Tang, Yingcai Wu. 2024. "Loss of Sonnet 18". In *ACM Special Interest Group on Computer Graphics and Interactive Techniques, Art Gallery* (SIGGRAPH'24). doi: 10.1145/3641523.3669939.

[2] **Jiayi Zhou**, Renzhong Li, Junxiu Tang, Tan Tang, Haotian Li, Weiwei Cui, Yingcai Wu. 2024. "Understanding Nonlinear Collaboration between Human and AI Agents: A Co-design Framework for Creative Design". In *Proceedings of the CHI Conference on Human Factors in Computing Systems* (CHI'24). doi: 10.1145/3613904.3642812.

[3] Junxiu Tang, Fumeng Yang, Jiang Wu, Yifang Wang, **Jiayi Zhou**, Lingyun Yu, Yingcai Wu. 2023. "A Comparative Study on Fixed-order Event Sequence Visualizations: Gantt, Extended Gantt, and Stringline Charts". *IEEE Transactions on Visualization and Computer Graphics* (TVCG). doi: 10.1109/TVCG.2024.3358919.

[4] Ran Chen, Di Weng, Yanwei Huang, Xinhuan Shu, **Jiayi Zhou**, Guodao Sun, Yingcai Wu. 2022. "Rigel: Transforming Tabular Data by Declarative Mapping". In *IEEE Transactions on Visualization and Computer Graphics* (TVCG), Proceedings of *IEEE Visualization and Visual Analytics Conference* (VIS'22). doi:10.1109/TVCG.2022.3209385.

[5] Zihan Yan, **Jiayi Zhou**, Yufei Wu, Guanhong Liu, Danli Luo, Zihong Zhou, Haipeng Mi, Lingyun Sun, Xiang 'Anthony' Chen, Ye Tao, Yang Zhang, and Guanyun Wang. 2022. "Shoes++: A Smart Detachable Sole for Social Foot-to-foot Interaction". In Proceedings of *the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies* (IMWUT'22). doi:10.1145/3534620.

Art Projects

These Data-driven Art and Data Storytelling were submitted to IEEE VIS Art Program, and are currently in preparation for ACM SIGGRAPH Art Papers, IEEE VIS Art Program, and The Information is Beautiful Awards.

- **Loss of Sonnet 18** [SIGGRAPH ART Gallery 2024] [Video]
  Junxiu Tang, **Jiayi Zhou**, Yifang Wang, Xinhuan Shu, Peiquan Xia, Xiaojiao Chen, Tan Tang, Yingcai Wu
  - This project is an explorative digital art installation that delves into the phenomenon of generation loss in digital signal processing - the inevitable degradation of information (e.g., words) quality through copying and propagation.
- **Imagination to the Universe: Mingling the Ancient and the Present** [Website] [PDF]
  Junxiu Tang, Yifang Wang, **Jiayi Zhou**, Xinhuan Shu, Tan Tang, Huaming Qu, Yingcai Wu
  - This series of works unscramble the Chinese's everlasting exploration of the universe based on a triple Mingling Space in Augmented Reality (AR).

Selected Awards and Honors

Outstanding Graduates (Undergraduate), Zhejiang University	*2024*
Zhejiang Province Government Scholarship (top 5%)	*2023*
Scholarship for Outstanding Students, Zhejiang University (top 8%)	*2023*
The Most Inspiring Design, Campus Asia Social Design Initiative Workshop	*2022*

Skills

Design	Figma, Adobe Creative Suite
Prototyping	3D Printing, Laser Cutting, Fabrication and Hardware Assembly, Circuit Design
Languages	Mandarin (native), English (proficient)
Hobbies	Graphic Design, Photography, Running