

Chengbo Zheng

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Research Interests

My research focuses on human-AI interaction. I am dedicated to leveraging human-computer interaction, visualization, and machine learning techniques to design human-centered AI systems and evaluate their impacts through a socio-technical lens.

Education


- 09/2020 – 08/2024 (expected) **The Hong Kong University of Science and Technology**
Ph.D Candidate, the Department of Computer Science & Engineering
Advisor: Prof. Xiaojuan Ma
- 09/2016 – 07/2020 **Zhejiang University**
B.Eng in the College of Computer Science & Chu Kochen Honors College
FYP Advisor: Prof. Yingcai Wu
FYP Topic: *Graph Visualization in Virtual Reality*

Experience

- 2023 **Visiting Student**, Interactive Data Group, Zhejiang University, with Prof. Yingcai Wu
- 2021 **Visiting Student**, iDVx Lab, Tongji University, with Prof. Yang Shi and Prof. Nan Cao
- 2020 **Research Intern**, Zhejiang Lab, with Prof. Yingcai Wu
- 2019 **Research Intern**, VIDI Labs, University of California at Davis, with Prof. Kwan-Liu Ma

Research Publications

- [1] **Chengbo Zheng**, Yuanhao Zhang, Zeyu Huang, Chuhan Shi, Minrui Xu, and Xiaojuan Ma. *DiscipLink: Unfolding Interdisciplinary Information Seeking Process via Human-AI Co-Exploration*. Conditionally Accepted by UIST'24.
- [2] Liwenhan Xie, **Chengbo Zheng**, Haijun Xia, Huamin Qu, and Zhu-Tian Chen. *WaitGPT: Monitoring and Steering Conversational LLM Agent in Data Analysis with On-the-Fly Code Visualization*. Conditionally Accepted by UIST'24.
- [3] **Chengbo Zheng**, Tian Gao, Shunan Guo, Yang Shi, Xiaojuan Ma, and Nan Cao. *A Design Space of Animating Data-Driven Transitions in Data Videos*. Accepted by ChinaVis'24.
- [4] Shuai Ma, Qiaoyi Chen, Xinru Wang, **Chengbo Zheng**, Zhenhui Peng, Ming Yin, and Xiaojuan Ma. "Towards human-ai deliberation: Design and evaluation of llm-empowered deliberative ai for ai-assisted decision-making". In: *arXiv preprint arXiv:2403.16812* (2024).
- [5] **Chengbo Zheng**, Kangyu Yuan, Bingcan Guo, Reza Hadi Mogavi, Zhenhui Peng, Shuai Ma, and Xiaojuan Ma. "Charting the Future of AI in Project-Based Learning: A Co-Design Exploration with Students". In: *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems*. CHI '24.
- [6] Chuhan Shi, Weiwei Cui, Chengzhong Liu, **Chengbo Zheng**, Haidong Zhang, Qiong Luo, and Xiaojuan Ma. "NL2Color: Refining Color Palettes for Charts with Natural Language". In: *IEEE Transactions on Visualization and Computer Graphics* (2023). DOI: 10.1145/3544548.3581131.
- [7] **Chengbo Zheng**, Yuheng Wu, Chuhan Shi, Shuai Ma, Jiehui Luo, and Xiaojuan Ma. "Competent but Rigid: Identifying the Gap in Empowering AI to Participate Equally in Group Decision-Making". In: *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. CHI '23. 2023. ISBN: 9781450394215. DOI: 10.1145/3544548.3581131.

- [8] Shuai Ma, Ying Lei, Xinru Wang, **Chengbo Zheng**, Chuhan Shi, Ming Yin, and Xiaojuan Ma. “Who Should I Trust: AI or Myself? Leveraging Human and AI Correctness Likelihood to Promote Appropriate Trust in AI-Assisted Decision-Making”. In: *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. CHI '23. 2023. ISBN: 9781450394215.  DOI: 10.1145/3544548.3581058.
- [9] Chuhan Shi, Yicheng Hu, Shenan Wang, Shuai Ma, **Chengbo Zheng**, Xiaojuan Ma, and Qiong Luo. “RetroLens: A Human-AI Collaborative System for Multi-Step Retrosynthetic Route Planning”. In: *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. CHI '23. 2023. ISBN: 9781450394215.  DOI: 10.1145/3544548.3581469.
- [10] **Chengbo Zheng***, Dakuo Wang*, April Yi Wang, and Xiaojuan Ma. “Telling Stories from Computational Notebooks: AI-Assisted Presentation Slides Creation for Presenting Data Science Work”. In: *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems*. CHI '22. 2022. ISBN: 9781450391573.  DOI: 10.1145/3491102.3517615.
- [11] **Chengbo Zheng** and Xiaojuan Ma. “Evaluating the Effect of Enhanced Text-Visualization Integration on Combating Misinformation in Data Story”. In: *2022 IEEE 15th Pacific Visualization Symposium (PacificVis)*. Apr. 2022, pp. 141–150.  DOI: 10.1109/PacificVis53943.2022.00023.
- [12] Di Weng, **Chengbo Zheng**, Zikun Deng, Mingze Ma, Jie Bao, Yu Zheng, Mingliang Xu, and Yingcai Wu. “Towards Better Bus Networks: A Visual Analytics Approach”. In: *IEEE Transactions on Visualization and Computer Graphics* 27.2 (2021), pp. 817–827.  DOI: 10.1109/TVCG.2020.3030458.
- [13] David Bauer, **Chengbo Zheng**, Oh-Hyun Kwon, and Kwan-Liu Ma. *A Multi-Layout Design for Immersive Visualization of Network Data*. 2023. arXiv: 2112.10272 [cs.HC].

Awards and Honors

2024	Special Recognitions for Outstanding Reviews , ACM CHI
2021-2024	Cao Qizhen Scholarship for Study Abroad , Zhejiang University Morningside Cultural China Scholars
2017-2020	Scholarship for Outstanding Students , Zhejiang University

Teaching Experience

Teaching Assistant, HKUST

2024	COMP4461, Human-Computer Interaction
2023	COMP1022P, Introduction to Computing with Java
2022	COMP4461, Human-Computer Interaction CSIT6000N, Advanced Topics in Human-Computer Interaction
2021	COMP 2711H, Honors Discrete Mathematical Tools for Computer Science

Service

Reviewer

2024	ACM CHI, ACM CSCW, NAACL, ACM DIS, ACM UIST, IJHCI, Mensch und Computer
2023	ACM UIST, IEEE VIS, ACM DIS, ACM CSCW, ACM CHI Late-Breaking Work
2022	ACM CHI Late-Breaking Work, ChineseCHI

Operations Committee

2024	Student Volunteer, ChinaVis
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Service (continued)

- Session Chair, ACM CHI
- Program Committee Member, ACM CHI Late Breaking Work
- Session Host, Greater Bay HCI Forum
- 2023 Program Committee Member, AIED Large Language Model Workshop
- Session Chair, ACM CHI
- 2022 Student Volunteer, ACM MobileHCI
- Student Volunteer, ACM DIS