
Chuhan Shi

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Education

The Hong Kong University of Science and Technology | PhD candidate 2019 - 2023 (expected)

- Supervised by **Prof. Xiaojuan Ma** and **Prof. Qiong Luo**
- Research interests: Human-Computer Interaction, Data Visualization, Decision-making Support Systems, Human-AI Collaboration

Shandong University | Bachelor of Engineering 2015 - 2019

- Major in Software Engineering GPA: 92.31/100, Rank 1/294
- Second Major in Financial Mathematics

Publications

[10] **Chuhan Shi**, Weiwei Cui, Chengzhong Liu, Chengbo Zheng, Haidong Zhang, Qiong Luo, Xiaojuan Ma. NL2Color: Refining Color Palettes for Charts with Natural Language. *IEEE Transactions on Visualization and Computer Graphics (Proceedings of VIS'23, oral)*. **CCFA / SCIE T1**

[9] Qingyu Guo, **Chuhan Shi**, Zhuohao Yin, Chengzhong Liu, Xiaojuan Ma. Exploring the Effects of Event-induced Sudden Influx of Newcomers to Online Pop Music Fandom Communities: Content, Interaction, and Engagement. *Proceedings of the ACM on Human-Computer Interaction. CSCW (2023) (CSCW'23, oral)*. **CCFA**

[8] **Chuhan Shi**, Yicheng Hu, Shenan Wang, Shuai Ma, Chengbo Zheng, Xiaojuan Ma, Qiong Luo. RetroLens: A Human-AI Collaborative System for Multi-step Retrosynthetic Route Planning. Accepted by *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI'23, oral)*. **CCFA**

[7] Shuai Ma, Ying Lei, Xinru Wang, Chengbo Zheng, **Chuhan Shi**, Ming Yin, Xiaojuan Ma. Who Should I Trust: AI or Myself? Leveraging Human and AI Correctness Likelihood to Promote Appropriate Trust in AI-Assisted Decision-Making. Accepted by *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI'23, oral)*. **CCFA**

[6] Chengbo Zheng, Yuheng Wu, **Chuhan Shi**, Shuai Ma, Jiehui Luo, Xiaojuan Ma. Competent but Rigid: Identifying the Gap in Empowering AI to Participate Equally in Group Decision-Making. Accepted by *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI'23, oral)*. **CCFA**

[5] **Chuhan Shi**, Fei Nie, Yicheng Hu, Yige Xu, Lei Chen, Xiaojuan Ma, Qiong Luo. MedChemLens: An Interactive Visual Tool to Support Direction Selection in Interdisciplinary Experimental Research of Medicinal Chemistry. In *IEEE Transactions on Visualization and Computer Graphics (Proceedings of VIS'22, oral)*. **CCFA / SCIE T1**

[4] **Chuhan Shi**, Zhihan Jiang, Xiaojuan Ma, Qiong Luo. A Personalized Visual Aid for Selections of Appearance Building Products with Long-term Effects. In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI'22, oral)*. **CCFA**

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- [3] Wenjie Yang, Sitong Wang, Zhenhui Peng, **Chuhan Shi**, Xiaojuan Ma, Diyi Yang. Know it to Defeat it: Exploring Health Rumor Characteristics and Debunking Efforts on Chinese Social Media During COVID-19 Crisis. In *Proceedings of the International AAAI Conference on Web and Social Media (ICWSM' 22)*. **CCF B**
- [2] Zhenhui Peng, **Chuhan Shi**, Xiaojuan Ma. Exploring User Experience and Design Opportunities of Desktop Social Virtual Reality for Group Learning Activities. In *The Ninth International Symposium of Chinese CHI (ChineseCHI' 21 Late-Breaking Work)*.
- [1] Zhida Sun, Sitong Wang, Wenjie Yang, Onur Yürüten, **Chuhan Shi**, and Xiaojuan Ma. "A Postcard from Your Food Journey in the Past": Promoting Self-Reflection on Social Food Posting. In *Proceedings of the Designing Interactive Systems Conference (DIS' 20)*.

Internship Experience

- Research Intern | DKI Group, **Microsoft Research Asia** 2022.10 - Present
- Supervised by principal researcher **Weiwei Cui**.
 - Conduct research on AI-powered data visualization generation and manipulation.
- Software Developer | Industry Baseline Solution Development Center, Huawei 2018.07 - 2018.12
- Supervised by **Baocheng Chen**.
 - Participated in the development and testing of smart park products.

Projects

- AI-assisted Decision-making for Natural Science Research 2021.04 - Present
- Interdisciplinary Experimental Research Direction Selection Support System
 - Designed and implemented an interactive visual scientific literature analytic system.
 - Applied BERT model automatically extracting and integrating relevant research data based on molecular characteristics.
 - Human-AI Collaboration for Synthetic Organic Chemistry Research
 - Developed a human-AI collaborative system to support multi-step research path planning.
 - Applied multi-criteria decision-making algorithms to help backtrack and locate potential problems in the multiple rounds of decision-making.
 - Human evaluation proved the systems facilitated faster task completion, generated better outcomes, and lowered cognitive load (nearly HKD 1M fund).
- Evaluation Model of Critical Dimensions for Brand Differentiation 2020.06 - 2020.12
- Designed and implemented computational models using machine learning algorithms to compare the visual styles of mobile user interfaces for different brands.
 - Helped the company to identify the difference with the competitive products and guided the future design of the mobile user interfaces (over HKD 400K fund).

Awards

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| 2019-Present | Postgraduate Scholarship (over HKD 200K annually), HKUST |
| 2019 | Outstanding Graduate in Shandong Province |
| 2018 | Excellent Student Second-Class Scholarship, Shandong University |
| 2016-2017 | National Scholarship, Ministry of Education of China (Twice) |
| 2017 | National Undergraduate Innovation and Entrepreneurship Training Program Fund |

2017	Excellent Student of Shandong Province, <u>the only one in Software College</u>
2016-2017	Excellent Student First-Class Scholarship, Shandong University (Twice)
2016-2017	Second Prize in Province, Mathematic Competition of Chinese College (Twice)
2016-2017	Merit Student, Shandong University (Twice)
2016-2017	Excellent Student Cadre, Shandong University (Twice)
2016	First Prize in Province, National Mathematical Modeling Contest

Academic Engagement

Reviewer: ACM Conference on Human Factors in Computing Systems (CHI)	2022, 2023, 2024
Reviewer: ACM Conference on Computer Supported Cooperative Work (CSCW)	2022, 2023
Reviewer: Chinese CHI	2022
Reviewer: ACM CHI Late Breaking Works (CHI LBW)	2020

Teaching

Spring 2023	Teaching Assistant, Human-Computer Interaction, HKUST
Spring 2023	Teaching Assistant, Advanced Topics in Human-Computer Interaction, HKUST
Fall 2021	Teaching Assistant, Principles of Programming Languages, HKUST
Fall 2020	Teaching Assistant, Human-Computer Interaction, HKUST
Spring 2020	Teaching Assistant, Database Management Systems, HKUST