# Rui SHENG

VisLab, advised by Prof. Huamin QU
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## EDUCATION

Ph.D.   Computer Science and Engineering, the Hong Kong University of Science and Technology (HKUST), China, 2021-current

B.S.    Computer Science and Technology (Rank: 2/334), Wuhan University (WHU), China, 2017-2021

## RESEARCH AREAS

Data visualization, human-AI collaboration, and decision-making, in particular focusing on how to leverage visual analytics to support decision-making in crucial sectors such as healthcare, science, and e-learning.

## RESEARCH

2023    **Rui Sheng**, Leni Yang, Haotian Li, Yan Luo, Ziyang Xu, Zhilan Zhou, David Gotz, and Huamin Qu. "Knowledge Compass: A Question Answering System Guiding Students with Follow-Up Ques.tion Recommendations." *ACM UIST Demo*.

2023    Junxiu Tang, **Rui Sheng**, Yifang Wang, Xinhuan Shu, Xiaojiao Chen, Tan Tang, Yingcai Wu. "Posts with no Response: The Island of Loneliness." *IEEE VIS Arts Program (accepted in two tracks - Pictorial and Artwork)*.

2021    Min Hu, Ruimin Hu, Xiaocheng Wang, **Rui Sheng**. "Unsupervised Temporal Attention Summarization Model for User Created Videos." *IEEE MMM*.

-       **Rui Sheng**, Xingbo Wang, Jiachen Wang, Xiaofu Jin, Zhonghua Sheng, Zhenxing Xu, Suraj Rajendran, Huamin Qu, and Fei Wang. "TrialCompass: Visual Analytics for Enhancing the Eligibility Criteria Design of Clinical Trials." *Under review for IEEE TVCG*.

-       **Rui Sheng**, Dongyu Liu, Yifang Wang, Xingbo Wang, Shun Dai, Qingyu Guo, Tai-Quan Peng, and Huamin Qu. "EMINDS: Understanding User Behavior Progression for Mental Health Exploration on Social Media." *Under review for IEEE TVCG*.

-       Qipeng Wang, **Rui Sheng**, Shaolun Ruan, Xiaofu Jin, Chuhan Shi, Min Zhu. "SynthLens: Visual Analytics for Facilitating Multi-step Synthetic Route Design." *Under review for IEEE TVCG*.

-       Jianben He, **Rui Sheng**, Xingbo Wang, Kam Kwai Wong, Xinhuan Shu, and Huamin Qu. "Engager: A Visual Analytics System for Multi-person and Multimodal Engagement Analysis in Online Teaching Videos." *Under review for IEEE TVCG*.

-       Xingbo Wang, Samantha L. Huey, **Rui Sheng**, Saurabh Mehta, Fei Wang. "SciDaSynth: Interactive Structured Knowledge Extraction and Synthesis from Scientific Literature with Large Language Model." *Target EMNLP 25 Demo*.

-       Jiachen Wang, Zikun Deng, Dazhen Deng, Xingbo Wang, **Rui Sheng**, Yi Cai, Huamin Qu. "Empowering Multimodal Analysis with Visualization: A Survey." *Under review for Computer Science Review*.

## PROJECTS

2024-27    Project leader. Visual Analytics of Student-AI Interaction Data for Generative AI-Assisted Learning.
HK$1M by the General Research Fund, the Research Grants Council of Hong Kong

2024-27    Project leader. AI-Powered, Personalized Analysis and Feedback Platform for K-12 Education in Computational Thinking Skills.
HK$450K by the ITF project & CUHK project

2024-27    Project member. AI-powered Audience Engagement Analysis for Virtual Communication.
HK$2M by the ITF project & industry project

## AWARDS

2021    Hong Kong Ph.D. Fellowship Scheme (HK$331,200 annually)

2020    National Scholarship in Wuhan University (6/334, the highest scholarship in WHU)

2019    National Scholarship in Wuhan University (6/342, the highest scholarship in WHU)

2019    National College Mathematics Modeling Competition Competition Award M

2019    The Second Prize of the National College Internet of Things Competition

2018    The First Prize of the 10th National College Mathematics Competition(Non-math Major)

## SERVICE

### Academic Peer Review

2024    The Conference on Human Factors in Computing Systems (CHI)

2024    The Conference on Computer-Supported Cooperative Work and Social Computing (CSCW).

2024    The Pacific Visualization (PacificVIS - TVCG track).

2024    The Conference on Human Factors in Computing Systems - Late-Breaking Work (CHI-LBW).

2023    The China Visualization and Visual Analytics Conference (ChinaVis).

2023    The Conference on Information and Knowledge Management (CIKM).

### Teaching Assistant

2024    HKUST COMP 4321 - Search Engines for Web and Enterprise Data

2023    HKUST COMP 1021 - Introduction to Computer Science

### Lab Service

2024-    In charge of the BBS of the group

2022-24    In charge of the publicity of our group (including WeChat, Zhihu, RedBook, and Twitter)

2021-22    In charge of maintaining the group homepage