

RUAN Chenxi

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https://tobystreasurechest.github.io/

EDUCATION

South China University of Technology, China

Bachelor of Engineering in Software Engineering, Bachelor of Management in Business Administration

Core Courses: Computer Networks, Operating Systems, Machine Learning, Data Mining, and Management.

Sep 2021 - Jul 2025

GPA: 3.53 / 4.0

The Hong Kong University of Science and Technology(Guangzhou), China

Ph.D. in Data Science and Analytics Thrust, Information Hub

Sep 2025 -

PUBLICATION

- **Ruan, C.**, Hou, Y., Chen, R., Xu, J., and Zeng, W. InfoWeaver: Interlinked Editing of Infographic Charts via Relation-Aware Propagation, 2026. (under review)
- **Ruan, C.**, Lin, F., Hou, Y., Xie, K., Lin, Y., Chen, R., and Zeng, W. IDEALDash: Embedding Cognitive Scaffolding in MLLMs for Science Communication Dashboard Generation, 2026. (under review)
- **Ruan, C.**, Hou, Y., Xiao, Y., Hu, G., and Zeng, W. ColorConceptBench: A Benchmark for Probabilistic Color-Concept Understanding in Text-to-Image Models, 2026. (under review)
- Liu, Y., **Ruan, C.**, Hou, Y., Luo, Q., and Zeng, W. REChart: Reasoning-Efficient Chart Editing with Large Reasoning Models, 2026. (under review)
- Ye, Y., **Ruan, C.**, Zhang, Y., Deng, Z., and Zeng, W. DKMap: Interactive Exploration of Vision-Language Alignment in Multimodal Embeddings via Dynamic Kernel Enhanced Projection. IEEE Transactions on Visualization and Computer Graphics (VIS 2025).
- Huang, R., **Ruan, C.**, Jiang, B., and Zeng, W. SceneWeaver: A Multi-Agent Collaborative System for 3D Scene Creation in Video Games. Proceedings of the 18th International Symposium on Visual Information Communication and Interaction (VINCI 2025).
- Yu, J., Ye, Y., Tang, C., Liu, Y., **Ruan, C.**, Feng, J., ... and Zeng, W. Embodied heritage by integrating digital and physical visualization of eaves tiles to display cultural heritage kinship. npj Heritage Science, 2025.
- Deng, Z., Huang, J., **Ruan, C.**, Li, J., Gao, S., and Cai, Y. Volume-Based Space-Time Cube for Large-Scale Continuous Spatial Time Series. IEEE Transactions on Visualization and Computer Graphics, 2025.

COMPETITION EXPERIENCES

Third Prize Winner(Top 3%) of CCF Big Data and Computing Intelligence Contest (BDCI)-Urban Population Analysis and Prediction

Dec 2023

The South China University of Technology Excellence Award of The 9th China International College Students' "Internet+" Innovation and Entrepreneurship Competition

Sep 2023

INTERNSHIP

The Hong Kong University of Science and Technology(Guangzhou)

Research assistant supervised by Prof.Wei Zeng

Jun 2024 - Present

- Investigated the factors leading to CLIP's suboptimal performance in chart visualization scenarios and proposed targeted solutions to enhance its analytical capabilities.
- Participated in a study to visualize the impact of datasets on model performance, uncovering how different data characteristics influence multimodal model outcomes.

SKILLS & LANGUAGE

Programming languages: Python, TypeScript, JavaScript, C++

Miscellaneous: Latex, Figma, Unity, MySQL

Web Technologies: HTML, CSS, Node.js, Vue.js

Language: Mandarin Chinese, English (TOEFL: 100)

EXTRACURRICULAR ACTIVITIES

Deputy Secretary, The Youth League Committee of School of Software Engineering

President, S.K.Crew Street Dance Association