

Yue Yu (Bruce)

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Research Interests

Social Mobility, Inequality and Stratification, Computational Social Science, Human-GenAI Interaction

Education

- **Hong Kong University of Science and Technology** August 2025 - August 2028 (expected)
Hong Kong
Ph.D. in Computational Social Science
 - Hong Kong PhD Fellowship Scheme (HKPFS). Supervised by Prof. Huamin Qu and Prof. Cameron Campbell.
- **Hong Kong University of Science and Technology** September 2023 - August 2025
Hong Kong
M.Phil in Computer Science and Engineering
 - GPA: 3.83/4.00. Supervised by Prof. Huamin Qu and Prof. Cameron Campbell.
- **Hong Kong University of Science and Technology** September 2019 - May 2023
Hong Kong
B.Sc in Quantitative Social Analysis & Computer Science
 - GPA: 3.7/4.00. Graduated with First Class Honors and was a valedictorian.

Selected Awards

- Hong Kong PhD Fellowship Scheme (HKPFS) 2025 - 2028
- Richard Sutch Student Travel Awards for SSHA 2025 November 2025
- ICCV 2025 Best Paper Award Finalist (13 out of 11239, top 0.1%) October 2025
- IEEE VIS 2024 Best Short Paper (2 out of 207, top 1%) October 2024
- Second place in IEEE SusTech 2022 Student Poster Competition April 2022
- Dean's List for 4 times and various scholarships during undergraduate studies (60,000 HKD in total) 2019 - 2023

Publications

J=Journal, C=Conference, S=In Submission, *=Equal contribution

[J.2] Yue Yu, Yueran Hou, Yibei Wu, and Cameron Campbell. **A Machine Learning Approach for Nominative Record Linkage in Chinese Historical Databases**. Conditionally accepted in *Historical Methods: A Journal of Quantitative and Interdisciplinary History*.

[J.1] Yue Yu, Yifang Wang, Yongjun Zhang, Huamin Qu, and Dongyu Liu. **InclusiViz: Visual Analytics of Human Mobility Data for Understanding and Mitigating Urban Segregation**. In *IEEE Transactions on Visualization and Computer Graphics* 2025. DOI: 10.1109/TVCG.2025.3567117

[C.7] Kentaro Takahira, Yue Yu, Takanori Fujiwara, Ryo Suzuki, and Huamin Qu. **InSituTale: Enhancing Augmented Data Storytelling with Physical Objects**. In *ACM Symposium on User Interface Software and Technology (UIST 2025)*

[C.6] Zichen Liu*, Yue Yu*, Hao Ouyang, Qiuyu Wang, Ka Leong Cheng, Wen Wang, Zhiheng Liu, Qifeng Chen, and Yujun Shen. **MagicQuill: An Intelligent Interactive Image Editing System**. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2025)*

[C.5] Zichen Liu, Yihao Meng, Hao Ouyang, Yue Yu, Bolin Zhao, Daniel Cohen-Or, and Huamin Qu. **Dynamic Typography: Bringing Text to Life via Video Diffusion Prior**. In *IEEE/CVF International Conference on Computer Vision (ICCV 2025)*,  Best Paper Award Finalist (top 0.1%)

[C.4] Yue Yu, Leixian Shen, Fei Long, Huamin Qu, and Hao Chen. **PyGWalker: On-the-fly Assistant for Exploratory Visual Data Analysis**. In *IEEE VIS 2024*,  Best Short Paper (top 1%). DOI: arXiv:2406.11637

[C.3] Yue Yu, Yifang Wang, Qisen Yang, Di Weng, Yongjun Zhang, Xiaogang Wu, Yingcai Wu, and Huamin Qu. **NeighViz: Towards Better Understanding of Neighborhood Effects on Social Groups with Spatial Data**. In *Visualization in Data Science (VDS2023@IEEE VIS)*, DOI: 10.1109/VDS60365.2023.00005

[C.2] Yue Yu, Sophia Yi, Xi Nan, Leo Yu-Ho Lo, Kento Shigyo, Liwenhan Xie, Jeffry Wicaksana, Kwang-Ting Cheng, and Huamin Qu. **FoodWise: Food Waste Reduction and Behavior Change on Campus with Data Visualization and Gamification**. In *the Proceedings of the 6th ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS '23)*, DOI: 10.1145/3588001.3609364

[C.1] Ehsan Ul Haq, Tristan Braud, Lik Hang Lee, Anish Krishna Vallapuram, Yue Yu, Gareth Tyson, and Pan Hui. **Short, Colorful, and Irreverent! A Comparative Analysis of New Users on WallstreetBets During the Gamestop Short-squeeze**. In *the Companion Proceedings of the Web Conference 2022 (WWW '22)*, DOI: 10.1145/3487553.3524202

Talks & Presentations

- “Small & Precise: Fine-Tuning Small Language Models for Computational Social Science Research.” New Horizons for AI Research in the Social Sciences and Humanities Conference, The University of Chicago Hong Kong, Hong Kong, 26 January 2026 (**invited talk**).
- “A Machine Learning Approach to Record Linkage of Chinese Historical Data.” International Conference on Ming-Qing Studies, Academia Sinica, Taipei, 12 December 2025.
- “A Machine Learning Approach to Record Linkage of Chinese Historical Data.” Social Science History Association, Chicago, 25 November 2025.
- “InclusiViz: Visual Analytics of Human Mobility Data for Understanding and Mitigating Urban Segregation.” IEEE PacificVis Conference, Taipei, 24 April 2025.
- “PyGWalker: On-the-fly Assistant for Exploratory Visual Data Analysis.” IEEE VIS Conference, Tampa (converted to remote mode), 16 October 2024.
- “NeighViz: Towards Better Understanding of Neighborhood Effects on Social Groups with Spatial Data.” Visualization in Data Science Symposium @ IEEE VIS Conference, Melbourne, 22 October 2023.

Industry Experience

- **5Y Capital** [🌐]
Investment Intern May 2025 - August 2025
◦ Conducted research and analysis on pioneering researchers and early-stage startups in AI4Science, world models, and AI infrastructure, identifying high-potential investment opportunities.
- **Ant Research** [🌐]
Research Intern June 2024 - September 2024
Hangzhou, China
◦ Researching user-friendly interactive tools powered by generative AI for effortless multimodal editing.
◦ Developed MagicQuill 📸, an intelligent interactive image editing system with 3.5K+ stars.
◦ Wrote a research paper as the co-first author ([C.6]) **accepted to CVPR 2025**.
- **Kanaries Data** [🌐]
Open-source Software Engineer Intern May 2023 - August 2023
Hangzhou, China
◦ Contributed various key features, including insight interpretation and multi-level pivot table, to graphic-walker 📸, an open-source data visualization library with 2.6K+ stars.
◦ Developed GWalkR 📈, an R package for interactive exploratory data analysis with 400+ stars.
◦ Actively moderated the discussions and answered questions in the open-source community.
◦ Wrote tutorials and a research paper ([C.4]) **accepted to IEEE VIS 2024 with a Best Short Paper Award**.
- **Tencent** [🌐]
Software Engineer Intern May 2021 - August 2021
Shenzhen, China
◦ Participated in developing news image-text retrieval Micro-services powered by the CLIP model.
◦ Developed an interactive demo website that visualizes the teams deep learning models.