

# Kam-Kwai WONG

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## Education

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- 2020 – 2026 | **Hong Kong University of Science and Technology**  
*Doctor of Philosophy in Computer Science and Engineering* *Advisor: Huamin Qu*  
Thesis: Visual Analytics Approaches for Multimodal Temporal Data
- 2012 – 2016 | **Hong Kong University of Science and Technology**  
*Bachelor of Engineering in Computer Science and Engineering*

## Academic Experience

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- 2024 | **Georgia Institute of Technology** – Visiting Researcher  
Collaborated on AR/VR research [P20] [P21] *Advisors: Yalong Yang, Jessica Roberts*
- 2021 | **Fudan University** – Visiting Researcher  
Visual analytics on business intelligence [P11] [P13] *Advisor: Siming Chen*
- 2021 | **Zhejiang University** – Visiting Researcher  
Visual analytics on Fintech [P25] and applications [P2] [P4] [P5] *Advisor: Wei Chen*
- 2016 – 2018 | **Hong Kong University of Science and Technology** – Graduate Researcher  
Computer vision and interaction logic

## Industry Experience

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- 2018 – 2019 | **Hong Kong Monetary Authority** – Fintech Specialist HKSAR  
Conducted regulatory policy research on emerging tech for executive strategy committees.  
Translating complex regulatory requirements into technical strategies.  
Facilitated digital transformation initiatives for retail banks on blockchain and open data.

## Selected Publications

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- 2026 **PVIS** | **Wong Kam-Kwai**, Yi-Lin Ye, Wai Tong, Haobo Li, Kentaro Takahira, Aastha Bhatta, Sunil Poudyal, Charles Wang Wai Ng, Huamin Qu, Leni Yang  
“LandSAR: Visceralizing Landslide Data for Enhanced Situational Awareness in Immersive Analytics”  
💡 *Developed an Immersive Digital Twin for landslide risk management, integrating geospatial simulation data to enhance situational awareness through XR experience.*
- 2025 **CHI** | Kentaro Takahira, **Wong Kam-Kwai**, Leni Yang, Xian Xu, Takanori Fujiwara, Huamin Qu  
“TangibleNet: Synchronous Network Data Storytelling through Tangible Interactions in Augmented Reality”  
💡 *Designed an Embodied Interaction framework for AR, demonstrating how tangible manipulation of digital entities supports synchronous collaborative sensemaking.*
- 2025 **TVCG** | Haobo Li, **Wong Kam-Kwai**, Yan Luo, Juntong Chen, Chengzhong Liu, Yaxuan Zhang, Alexis Kai Hon Lau, Huamin Qu, Dongyu Liu  
“Save It for the “Hot” Day: An LLM-Empowered Visual Analytics System for Heat Risk Management”  
💡 *Built a visual analytics system for Environmental Risk (extreme heat), fusing heterogeneous data streams (news and numerical models) to support city-scale resilience planning.*

## Publications

### Peer-reviewed Conference and Journal Papers

Clicks paper title or venue for DOI  
(\* ) indicates equal contribution

- 2026 [P26] **Wong Kam-Kwai**, Yi-Lin Ye, Wai Tong, Haobo Li, Kentaro Takahira, Aastha Bhatta, Sunil Poudyal, Charles Wang Wai Ng, Huamin Qu, Leni Yang  
*"LandSAR: Visceralizing Landslide Data for Enhanced Situational Awareness in Immersive Analytics"*  
**PacificVis 2026** – 2026 IEEE 19th Pacific Visualization Conference (PacificVis) (*To appear*)
- 2025 [P25] **Wong Kam-Kwai**, Yan Luo, Xuanwu Yue, Wei Chen, Huamin Qu  
*"Prismatic: Interactive Multi-View Cluster Analysis of Concept Stocks"*  
**IEEE TVCG 2025** – IEEE Transactions on Visualization and Computer Graphics
- [P24] Haobo Li, **Wong Kam-Kwai**, Yan Luo, Juntong Chen, Chengzhong Liu, Yaxuan Zhang, Alexis Kai Hon Lau, Huamin Qu, Dongyu Liu  
*"Save It for the "Hot" Day: An LLM-Empowered Visual Analytics System for Heat Risk Management"*  
**IEEE TVCG 2025** – IEEE Transactions on Visualization and Computer Graphics
- [P23] Wai Tong, Haobo Li, Meng Xia, **Wong Kam-Kwai**, Ting-Chuen Pong, Huamin Qu, Yalong Yang  
*"Exploring Spatial Hybrid User Interface for Visual Sensemaking"*  
**IEEE TVCG 2025** – IEEE Transactions on Visualization and Computer Graphics
- [P22] Kentaro Takahira, **Wong Kam-Kwai**, Leni Yang, Xian Xu, Takanori Fujiwara, Huamin Qu  
*"TangibleNet: Synchronous Network Data Storytelling through Tangible Interactions in Augmented Reality"*  
**ACM CHI 2025** – Proceedings of the CHI Conference on Human Factors in Computing Systems
- [P21] Stella Quinto Lima, Gabriela Buraglia, **Wong Kam-Kwai**, Jessica Roberts  
*"Data Bias Recognition in Museum Settings: Framework Development and Contributing Factors"*  
**ACM CHI 2025** – Proceedings of the CHI Conference on Human Factors in Computing Systems
- [P20] Tao Lu, Qian Zhu, Tiffany Ma, **Wong Kam-Kwai**, Anlan Xie, Alex Endert, Yalong Yang  
*"Ego vs. Exo and Active vs. Passive: Investigating the Individual and Combined Effects of Viewpoint and Navigation on Spatial Immersion and Understanding in Immersive Storytelling"*  
**ACM CHI 2025** – Proceedings of the CHI Conference on Human Factors in Computing Systems
- [P19] Wei Zhang, **Wong Kam-Kwai**, Biying Xu, Yiwen Ren, Yuhuai Li, Yingchaojie Feng, Minfeng Zhu, Wei Chen  
*"CultiVerse: Towards Cross-Cultural Understanding for Paintings with Large Language Model"*  
**ACM MM 2025** – Proceedings of the ACM International Conference on Multimedia
- [P18] Xingyu Liu, Jiehui Zhou, Xumeng Wang, **Wong Kam-Kwai**, Wei Zhang, Xingyu Liu, Juntian Zhang, Minfeng Zhu, Wei Chen  
*"CausalPrism: A Visual Analytics Approach for Subgroup-based Causal Heterogeneity Exploration"*  
**C&G 2025** – Computers & Graphics
- [P17] Fan Yan, Yong Wang, Xuanwu Yue, **Wong Kam-Kwai**, Ketian Mao, Rong Zhang, Huamin Qu, Haiyang Zhu, Minfeng Zhu, Wei Chen  
*"FundSelector: A visual analysis system for mutual fund selection"*  
**VI 2025** – Visual Informatics
- 2024 [P16] Wei Zhang, **Wong Kam-Kwai**, Yitian Chen, Ailing Jia, Luwei Wang, Jian-Wei Zhang, Lechao Cheng, Huamin Qu, Wei Chen  
*"ScrollTimes: Tracing the Provenance of Paintings as a Window into History"*  
**PacificVis 2024** – IEEE Transactions on Visualization and Computer Graphics

- [P15] Wei Zhang, Jianwei Zhang, Wong Kam-Kwai, Yifang Wang, Yingchaojie Feng, Luwei Wang, Wei Chen  
*“Computational Approaches for Traditional Chinese Painting: From the “Six Principles of Painting” Perspective”*  
**JCST 2024** – Journal of Computer Science and Technology
- [P14] Luoxuan Weng, Shi Liu, Hang Zhu, Jiashun Sun, Wong Kam-Kwai, Dongming Han, Minfeng Zhu, Wei Chen  
*“Towards an Understanding and Explanation for Mixed-Initiative Artificial Scientific Text Detection”*  
**Info Vis 2024** – Information Visualization
- [P13] Xuan Chen, Xincan Zhang, Zhaohan Wang, Kerun Yu, Wong Kam-Kwai, Haoyun Guo, Siming Chen  
*“Visual Analytics for Security Threats Detection in Ethereum Consensus Layer”*  
**ChinaVis 2023** – Journal of Visualization
- [P12] Longfei Chen, Chen Cheng, He Wang, Xiyuan Wang, Yun Tian, Xuanwu Yue, Wong Kam-Kwai, Haipeng Zhang, Suting Hong, Quan Li  
*“FMLens: Towards Better Scaffolding the Process of Fund Manager Selection in Fund Investments”*  
**IEEE TVCG 2024** – IEEE Transactions on Visualization and Computer Graphics
- 2023 [P11] Wong Kam-Kwai, Xingbo Wang, Yong Wang, Jianben He, Rong Zhang, Huamin Qu  
*“Anchorage: Visual Analysis of Satisfaction in Customer Service Videos via Anchor Events”*  
**IEEE TVCG 2023** – IEEE Transactions on Visualization and Computer Graphics
- [P10] Yingchaojie Feng, Xingbo Wang, Bo Pan, Wong Kam-Kwai, Yi Ren, Shi Liu, Zihan Yan, Yuxin Ma, Huamin Qu, Wei Chen  
*“XNLI: Explaining and Diagnosing NLI-based Visual Data Analysis”*  
**IEEE TVCG 2023** – IEEE Transactions on Visualization and Computer Graphics
- [P9] Yingchaojie Feng, Xingbo Wang, Wong Kam-Kwai, Sijia Wang, Yuhong Lu, Minfeng Zhu, Baicheng Wang, Wei Chen  
*“PromptMagician: Interactive Prompt Engineering for Text-to-Image Creation”*  
**IEEE VIS 2023** – IEEE Transactions on Visualization and Computer Graphics
- [P8] Jianben He, Xingbo Wang, Wong Kam-Kwai, Xijie Huang, Changjian Chen, Zixin Chen, Fengjie Wang, Min Zhu, Huamin Qu  
*“VideoPro: A Visual Analytics Approach for Interactive Video Programming”*  
**IEEE VIS 2023** – IEEE Transactions on Visualization and Computer Graphics
- [P7] Wai Tong, Meng Xia, Wong Kam-Kwai, Doug A Bowman, Ting-Chuen Pong, Huamin Qu, Yalong Yang  
*“Towards an Understanding of Distributed Asymmetric Collaborative Visualization on Problem-solving”*  
**IEEE VR 2023** – IEEE Conference Virtual Reality and 3D User Interfaces (VR)
- [P6] Linping Yuan, Boyu Li, Siqi Li, Wong Kam-Kwai, Rong Zhang, Huamin Qu  
*“Tax-Scheduler: An Interactive Visualization System for Staff Shifting and Scheduling at Tax Authorities”*  
**VI 2023** – Visual Informatics
- 2022 [P5] Wei Zhang, Wong Kam-Kwai, Xumeng Wang, Youcheng Gong, Rongchen Zhu, Kai Liu, Zihan Yan, Siwei Tan, Huamin Qu, Siming Chen, Wei Chen  
*“CohortVA: A Visual Analytic System for Interactive Exploration of Cohorts based on Historical Data”*  
**IEEE VIS 2022** – IEEE Transactions on Visualization and Computer Graphics

- [P4] Jiehui Zhou, Xumeng Wang, **Wong Kam-Kwai**, Huanliang Wang, Zhongwei Wang, Xiaoyu Yang, Xiaoran Yan, Haozhe Feng, Huamin Qu, Haochao Ying, Wei Chen  
*"DPVisCreator: Incorporating Pattern Constraints to Privacy-preserving Visualizations via Differential Privacy"*  
**IEEE VIS 2022** – IEEE Transactions on Visualization and Computer Graphics
- 2021 [P3] Leni Yang, Cindy Xiong, **Wong Kam-Kwai**, Aoyu Wu, Huamin Qu  
*"Explaining with Examples Lessons Learned from Crowdsourced Introductory Description of Information Visualizations"*  
**IEEE TVCG 2021** – IEEE Transactions on Visualization and Computer Graphics
- [P2] Yingchaojie Feng, Jiazhou Chen, Keyu Huang, **Wong Kam-Kwai**, Hui Ye, Wei Zhang, Rongchen Zhu, Xiaonan Luo, Wei Chen  
*"iPoet: Interactive Painting Poetry Creation with Visual Multimodal Analysis"*  
**ChinaVis 2021** – Journal of Visualization
- 2020 [P1] Yating Lin\*, **Wong Kam-Kwai\***, Yong Wang, Rong Zhang, Bo Dong, Huamin Qu, Qinghua Zheng  
*"TaxThemis: Interactive Mining and Exploration of Suspicious Tax Evasion Groups"*  
**IEEE VIS 2020** – IEEE Transactions on Visualization and Computer Graphics
- Patents**
- 2022 [PT1] **Wong Kam-Kwai**, Xingbo Wang, Yong Wang, Jianben He, Rong Zhang, Huamin Qu.  
*"Method and System for Visual Analysis and Evaluation of Customer Satisfaction Levels in Service Videos."*  
 US Provisional Patent, 2022

## Scholarships and Other Honors

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- 2024 | **Overseas Research Award** (HK\$60,000)
- 2022 | **Deloitte ESG Innovation Award** (Top prize in HackUST, HK\$50,000)
- 2019 | **Young Talent Award** (BOCHK Hackathon, HK\$80,000)
- 2016 | **First Class Honors** (HKUST, top 5%)  
**Academic Excellence Award** (HKUST, top 10%)

## Grant Writing and Funding

- 2024 | **Study of the Regional Earth System for Sustainable Development under Climate Change in the Greater Bay Area**  
 HKD\$ 1.4 million – HK RGC AoE, contributed to grant writing, with the PhD advisor as Co-PI
- 2023 | **Augmenting Situated Visualizations with Tangible User Interfaces**  
 HKD\$ 1 million – HK RGC GRF, contributed to grant writing, with the PhD advisor as PI

## Academic Services

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### Reviews

- 2026 | ISS, Scientific Reports
- 2025 | CHI, ISMAR, ISS, MM, VIS
- 2024 | CHI, CHI LBW, PacificVis
- 2023 | CHI, CHI LBW, ChinaVis, EuroVis, TVCG, VIS  
Special Recognitions for Outstanding Reviews – VIS
- 2022 | ChinaVis, EuroVis, PacificVis, VIS, VISINF
- 2021 | ChinaVis

### Invited Talks

- 2025 | Multimodal Visual Analytics for Business Insight
- 2024 | Immersive Landslide Training for Public Engagement
- 2023 | Engaging Broader Audiences Through Visual Analytics  
Unlocking Historical Narratives: A Visual Analytics Approach in Digital Humanities
- 2022 | Theoretical Foundations and Frameworks of Visual Analytics  
CohortVA: A Visual Analytic System for Iterative Exploration of Cohorts based on Historical Data
- 2021 | Visual Analysis Approaches for Financial Data