

JINGYU LIU

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EDUCATION

Hong Kong University of Science and Technology, Guangzhou, China **09/2024 – 06/2028**
(expected)

PhD in Financial Technology. Advised by Prof. Xuechao Wang and Prof. Yingjie Xue

Harbin Institute of Technology, Shenzhen, China **09/2019 – 06/2023**

B.E. in Computer Science and Technology

WORKING PAPERS AND PREPRINTS

† Corresponding author

- **Jingyu Liu**, Bolin Zhang, Lin William Cong, Siguang Li, and Xuechao Wang[†]. *From PBS to ePBS: the Microstructure of Block Building*. Accepted for presentation at the [2026 INFORMS Conference on Financial Engineering and Fintech](#). arXiv:2607.11240, 2026.
- **Jingyu Liu**, Yingjie Xue, Di Wu, Jian Liu, and Xuechao Wang[†]. *Zeus: Demystifying Fee Security in Multi-Hop Payments*. Cryptology ePrint Archive, Paper 2025/1070, 2025.
- Bolin Zhang, **Jingyu Liu**, and Xuechao Wang[†]. *Reward Design for Residual-Stake Safety in Restaking Networks*. Working paper.
- Zifan Peng, **Jingyu Liu**, Huaiyu Jia, Junhao Yang, Yingjie Xue[†], and Xuechao Wang[†]. *Protected Exercise for Bridgeless Cross-Chain Options Without Upfront Holder Collateral*. Major revision at IEEE Transactions on Dependable and Secure Computing (TDSC).
- Junhao Yang, **Jingyu Liu**, Yingjie Xue[†], Yijia Chang, Xiaohan Hao, and Wei Wu. *DCGUAS: Universal Atomic Cross-Chain Swap for Directed Connected Graphs*. Working paper.
- Di Wu, **Jingyu Liu**, Xuechao Wang, Jian Liu[†], Yingjie Xue, Kui Ren, and Chun Chen. *Your Trust, Your Terms: A General Paradigm for Near-Instant Cross-Chain Transfer*. arXiv:2403.15191, 2024.

PUBLICATIONS

- Zifan Peng, Jingyi Zheng, Yule Liu, Huaiyu Jia, Qiming Ye, **Jingyu Liu**, Xufeng Yang, Mingchen Li, Qingyuan Gong, Xuechao Wang, and Xinlei He[†]. *TxSum: User-Centered Ethereum Transaction Understanding with Micro-Level Semantic Grounding*. Accepted to Findings of the Association for Computational Linguistics: EMNLP 2026. arXiv:2512.06933.
- Huaiyu Jia, Jieshun You, **Jingyu Liu**, Yizhi Luo, and Shuo Sun[†]. *Towards Event-Aware Forecasting in DeFi: Insights from On-chain Automated Market Maker Protocols*. In the 32nd ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD'26), 2026.
- Yingjie Xue[†], **Jingyu Liu**, Zifan Peng, Chao Lin, Jianan Hong, and Xinyi Huang. *FairRelay: Fair Off-Chain Incentives for Decentralized Physical Infrastructure Networks*. IEEE Transactions on Dependable and Secure Computing (TDSC), vol. 23, no. 2, 2026.
- Zifan Peng, Yingjie Xue[†], and **Jingyu Liu**. *Cross-Chain Options: A Bridgeless, Universal, and Efficient Approach*. In the 2025 IEEE International Conference on Web Services (ICWS'25), 2025.
- **Jingyu Liu**, Yang Zhao, Xinrui Xiao, Ran Meng, and Jie Liu[†]. *CAS: Crop Aerial Sensing Simulation in Smart Farming*. In the 20th Annual IEEE International Conference on Sensing, Communication, and Networking (SECON'23), 2023.
- **Jingyu Liu**, Xinrui Xiao, Yang Zhao, and Jie Liu[†]. *Containerized Mobile Sensing Simulation Framework for Smart Agriculture*. In the 20th ACM Conference on Embedded Networked Sensor Systems (SenSys'22), 2022.

ACADEMIC SERVICE

- Reviewer: (TDSC, 2026).
- Subreviewer: (AsiaCCS, 2026 cycle 1 and cycle 2).

RESEARCH AND WORK EXPERIENCE

Thrust of Financial Technology

Hong Kong University of Science and Technology, Guangzhou, China

12/2023 – 08/2024

Full-time Research Assistant | Advisor: [Prof. Yingjie Xue](#)

International Research Institute for Artificial Intelligence

Harbin Institute of Technology, Shenzhen, China

08/2022 – 06/2023

Part-time Undergraduate Research Assistant | Advisor: [Prof. Yang Zhao](#)

Software and Emerging Technologies Lab

Polytechnique Montréal, Montreal, Canada

07/2022 – 10/2022

Full-time Research Intern | Advisor: [Prof. Mohammad Hamdaqa](#)

MISCELLANEOUS

- Homepage: <https://jingyu.uk/>