Xingyu Yang

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EDUCATION

Beijing Institute of Technology **Sep. 2022 – June 2025**
Master of Science in Cyberspace Science, Advisor: Lei Xu, Liehuang Zhu *Beijing,China*

- Research Interests: Blockchain Technology and Privacy-enhanced Technologies.

Chongqing University **Sep. 2018 – June 2022**
Bachelor of Science in Computer Science, ***GPA:88.78/100*** *Chongqing,China*

- Main Course: Data Structure (97), Computer Networks (91), Computer Architecture (96), Operating Systems (91), Database System Principle (98), Foundation of Machine Learning (92), etc.

PUBLICATIONS

Papers

- **Yang X**, Xu L, Zhu L. PPSC: A Privacy-Preserving Stateless Cryptocurrency System[C]//2024 8th International Conference on Cryptography, Security and Privacy (CSP). IEEE, 2024: 59-64.
- **Yang X**, Xu L, Zhu L. MSCPR: A maintainable vector commitment-based stateless cryptocurrency system with privacy preservation and regulatory compliance[J]. Future Generation Computer Systems, 2025, 166: 107713. (FGCS, JCR-Q1)
- **Yang X**, Hou J, Xu L, et al. zkFabLedger: Enabling Privacy Preserving and Regulatory Compliance in Hyperledger Fabric[J]. IEEE Transactions on Network and Service Management, 2025. (TNSM, JCR-Q1, co-first author)
- **Yang X**, Xu L, Zhu L, De-anonymizing Monero: A Maximum Weighted Matching-based Approach, IEEE Transactions on Information Forensics and Security, 2024, under review. (TIFS, JCR-Q1)

Patents

- L. Xu, **X. Yang**, L. Zhu, A De-anonymization Attack for Monero Based on Maximum Weighted Matching Method, China, ZL2023105201561.
- L. Xu, **X. Yang**, Q. Wei, L. Zhu, et al., A Method for Identifying Cross-Regional Digital Currency Transactions Based on Traffic Group Characteristics, China, ZL2024104549187.

RESEARCH PROJECTS

Cross-regional flow tracking and identification technology of Cryptocurrency **August 2022 – Now**
National Key Research and Development Program of China *Beijing,China*

- **Motivation**: Develop a general method for authoritative regulators to discover the real IP address of the originator in a cryptocurrency transaction.
- **Method**: Collect traffic of blockchain network from gateways – Construct propagation trees from the disordered traffic based on several heuristic algorithms – Evaluate all the roots of propagating trees based on designed features to get the scores of whether they would be the originating node.
- **Result**: Conduct real-world experiments using popular cryptocurrencies (TRON, BTC) on the blockchain, remarkably improving the accuracy of inferring tasks to 79.77% with a recall of 89.07%.

SELECTED HONORS & AWARDS

Chinese Collegiate Computing Competition: National Second Prize (2021)
Chinese Competition of Service Outsourcing and Entrepreneurship Innovation: National Third Prize (2020)
MindSpore Community Developer awarded by Huawei (2021)
Special grade scholarship of Beijing Institute of Technology (2023)
Second grade scholarship of Chongqing University (2020)
President of Student Union, School of Cyberspace Science and Technology, Beijing Institute of Technology (2023)

OTHERS

Languages: Mandarin (native), English (IELTS 7.5: Listening 8.0; Reading 8.5; Writing 6.5; Speaking 6.0)
Service: Reviewer for IEEE TIFS
Internship: Xiaohongshu (software development engineer intern in test)