

LI ZIHAO

cszhli@comp.polyu.edu.hk

The Hong Kong Polytechnic University, Hong Kong

EDUCATION

PhD Candidate <i>Department of Computing</i> The Hong Kong Polytechnic University	2021 – Present
Master Degree <i>Cyberspace Security</i> University of Electronic Science and Technology of China	2017 – 2020
Bachelor Degree <i>Information Security</i> University of Electronic Science and Technology of China	2013 – 2017

WORK EXPERIENCE

Research Assistant <i>Department of Computing</i> The Hong Kong Polytechnic University	Aug. 2018 – Jan. 2019
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RESEARCH INTERESTS

Blockchain Security, Smart Contract Security, Software Engineering

AWARDS AND GRANTS

Ethereum Foundation Academic Grant, awarded by Ethereum Foundation on blockchain security research, 2023.

Best Paper Nominee, awarded by International Symposium on Empirical Software Engineering and Measurement (ESEM), 2019.

Best Paper Award, awarded by IEEE International Conference on Computer Communications (INFOCOM), 2018.

Best Paper on Blockchain, awarded by China Computer Federation (CCF) Technical Committee on Block Chain, 2018.

Best Paper Award, awarded by International Conference on Information Security Practice and Experience (ISPEC), 2017.

National Scholarship, awarded by Ministry of Education, 2019.

The 1st Prize Scholarship, awarded by University of Electronic Science and Technology of China, 2019.

National Scholarship, awarded by Ministry of Education, 2018.

The 1st Prize Scholarship, awarded by University of Electronic Science and Technology of China, 2018.

National 2nd Prize, awarded by The 9th National College Student Information Security Contest, 2016.

PUBLICATIONS

Z. He, **Z. Li (Co-first Author)**, A. Qiao, X. Luo, X. Zhang, T. Chen, S. Song, D. Liu, W. Niu, **"NURGLE: Exacerbating Resource Consumption in Blockchain State Storage via MPT Manipulation"**, IEEE Symposium on Security and Privacy (S&P), 2024. (CCF A)

S. Wu, **Z. Li**, L. Yan, W. Chen, M. Jiang, C. Wang, X. Luo, H. Zhou, **"Are We There Yet? Unraveling the State-of-the-Art Smart Contract Fuzzers"**, IEEE/ACM International Conference on Software Engineering (ICSE), 2024. (CCF A)

- Z. Li**, J. Li, Z. He, X. Luo, T. Wang, X. Ni, W. Yang, X. Chen, and T. Chen, **"Demystifying DeFi MEV Activities in Flashbots Bundle"**, ACM Conference on Computer and Communications Security (CCS), 2023. (CCF A)
- K. Zhao, **Z. Li**, J. Li, H. Ye, X. Luo, and T. Chen, **"DeepInfer: Deep Type Inference from Smart Contract Bytecode"**, ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE), 2023. (CCF A)
- S. Li, J. Li, Y. Tang, X. Luo, Z. He, **Z. Li**, X. Chen, Y. Bai, T. Chen, Y. Tang, Z. Liu, and X. Zhang, **"BlockExplorer: Exploring Blockchain Big Data via Parallel Processing"**, IEEE Transactions on Computers (TC), 2023. (CCF A)
- Z. He, Z. Liao, F. Luo, D. Liu, T. Chen, and **Z. Li**, **"TokenCat: Detect Flaw of Authentication on ERC20 Tokens"**, IEEE International Conference on Communications (ICC), 2022. (CCF C)
- Y. Tang, **Z. Li**, and Y. Bai, **"Rethinking of Reentrancy on the Ethereum"**, DASC/PiCom/CBDDCom/CyberSciTech, 2021. (CCF C)
- T. Chen, **Z. Li** (First student author), X. Luo, X. Wang, T. Wang, Z. He, K. Fang, Y. Zhang, H. Zhu, H. Li, Y. Cheng, and X. Zhang, **"SigRec: Automatic Recovery of Function Signatures in Smart Contracts"**, IEEE Transactions on Software Engineering (TSE), 2021 (also appear at the Journal First Session of the IEEE/ACM International Conference on Automated Software Engineering (ASE), 2021, and the Demo and Poster Session of the IEEE International Conference on Distributed Computing Systems (ICDCS), 2023). (CCF A)
- T. Chen, **Z. Li** (First student author), Y. Zhu, J. Chen, X. Luo, J. Lui, X. Lin, and X. Zhang, **"Understanding Ethereum via Graph Analysis"**, ACM Transactions on Internet Technology (TOIT), 2020. (CCF B)
- T. Chen, Y. Feng, **Z. Li**, H. Zhou, X. Luo, X. Li, X. Xiao, J. Chen and X. Zhang, **"GasChecker: Scalable Analysis for Discovering Gas-Inefficient Smart Contracts"**, IEEE Transactions on Emerging Topics in Computing (TETC), 2020. (CCF B)
- T. Chen, Y. Zhang, **Z. Li**, X. Luo, T. Wang, R. Cao, X. Xiao, and X. Zhang, **"TokenScope: Automatically Detecting Inconsistent Behaviors of Cryptocurrency Tokens in Ethereum"**, ACM Conference on Computer and Communications Security (CCS), 2019. (CCF A)
- T. Chen, **Z. Li** (First student author), Y. Zhang, X. Luo, T. Wang, T. Hu, X. Xiao, D. Wang, J. Huang, and X. Zhang, **"A Large-Scale Empirical Study on Control Flow Identification of Smart Contracts"**, International Symposium on Empirical Software Engineering and Measurement (ESEM), 2019. (CCF B)
- T. Chen, **Z. Li** (First student author), Y. Zhang, X. Luo, A. Chen, K. Yang, B. Hu, T. Zhu, S. Deng, T. Hu, J. Chen, and X. Zhang, **"DataEther: Data Exploration Framework For Ethereum"**, IEEE International Conference on Distributed Computing Systems (ICDCS), 2019. (CCF B)
- T. Chen, **Z. Li** (First student author), H. Zhou, J. Chen, X. Luo, X. Li, and X. Zhang, **"Towards Saving Money in Using Smart Contracts"**, IEEE International Conference on Software Engineering (ICSE-NIER), 2018. (CCF A)
- T. Chen, Y. Zhu, **Z. Li** (First student author), J. Chen, X. Li, X. Luo, X. Lin, and X. Zhang, **"Understanding Ethereum via Graph Analysis"**, IEEE International Conference on Computer Communications (INFOCOM), 2018. (CCF A)
- T. Chen, X. Li, Y. Wang, J. Chen, **Z. Li**, X. Luo, M. Au, and X. Zhang, **"An Adaptive Gas Cost Mechanism for Ethereum to Defend Against Under-Priced DoS Attacks"**, International Conference on Information Security Practice and Experience (ISPEC), 2017. (CCF B)

MISCELLANEOUS

- <https://zzzhao-li.github.io/>
- <https://github.com/zzzhao-li>