# LI ZIHAO

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#### **EDUCATION**

PhD Candidate   Department of Computing The Hong Kong Polytechnic University	2021 – Present
Master Degree   Cyberspace Security 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

### RESEARCH INTERESTS

# Blockchain, Smart Contract Analysis, Network Analysis, Software Engineering

## **AWARDS**

**Best Paper Nominee**, 13th International Symposium on Empirical Software Engineering and Measurement (ESEM), 2019.

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

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

**Best Paper Award**, 13th International Conference on Information Security Practice and Experience (ISPEC), 2017.

## **PUBLICATIONS**

- T. Chen, **Z. Li**, 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 36th IEEE/ACM International Conference on Automated Software Engineering).
- T. Chen, Y. Zhu, **Z. Li**, J. Chen, X. Li, X. Luo, X. Lin, and X. Zhang, "Understanding Ethereum via Graph Analysis", Proc. of IEEE International Conference on Computer Communications (INFOCOM), Honolulu, USA, April 2018. (Best Paper Award)
- T. Chen, **Z. Li**, H. Zhou, J. Chen, X. Luo, X. Li, and X. Zhang, "**Towards Saving Money in Using Smart Contracts**", Proc. of 40th IEEE International Conference on Software Engineering (ICSE) (NIER), pp. 81-84, Gothenburg, Sweden, May 2018.
- T. Chen, **Z. Li**, 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.
- 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**", Proc. of the 26th ACM Conference on Computer and Communications Security (CCS), London, UK, November 2019.
- T. Chen, **Z. Li**, 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**", Proc. of the International Symposium on Empirical Software Engineering and Measurement (ESEM), Porto de Galinhas, Brazil, September 2019.(**Best Paper Nominee**)

- T. Chen, **Z. Li**, 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**", Proc. of the 39th IEEE International Conference on Distributed Computing Systems (ICDCS), Dallas, USA, July 2019.
- 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.
- 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", Proc. of 13th International Conference on Information Security Practice and Experience (ISPEC), pp. 3-24, Melbourne, Australia, December 2017. (Best Paper Award)