

Yaozheng Fang

A Ph.D student from College of Computer Science, Nankai University, China

E-mail: fyz@mail.nankai.edu.cn

Date of birth: 1997-01-14

Research interests

Intelligent computing system, Smart contract virtual machine architecture, Distributed computing system

Education experiences

Successive master-doctor program (Ph.D student phase) <i>Computer Science</i> <i>Research fields: Blockchain system design, Artificial intelligence, Operating system</i>	<i>Nankai University</i> <i>2021.09 - 2025.06</i>
Successive master-doctor program (Master student phase) <i>Computer Science</i> <i>Research fields: Blockchain system design, Smart contract technologies</i>	<i>Nankai University</i> <i>2019.09 - 2021.06</i>
Bachelor's degree in Network Engineering <i>Bachelor's degree program</i> <i>GPA: 3.8/4.0</i>	<i>Hebei University of Technology</i> <i>2015.09 - 2019.06</i>

Selected publications

As the (student) first author:

- [1] **Fang Y**, Lu Y*, et al. PaVM: A Parallel Virtual Machine for Smart Contract Execution and Validation[J]. *R2 under review*. IEEE Transactions on Parallel and Distributed Systems, 2023.
- [2] Li T, **Fang Y**, Lu Y*, et al. SmartVM: a smart contract virtual machine for fast on-chain DNN computations[J]. IEEE Transactions on Parallel and Distributed Systems, 2022, 33(12): 4100-4116.
- [3] Li T, **Fang Y**, Jian Z, et al. ATOM: Architectural support and optimization mechanism for smart contract fast update and execution in blockchain-based IoT[J]. IEEE Internet of Things Journal, 2021, 9(11): 7959-7971.
- [4] **Fang Y**, Jian Z, Jin Z, et al. Fast policy interpretation and dynamic conflict resolution for blockchain-based IoT system[J]. Wireless Communications and Mobile Computing, 2021, 2021: 1-14.

Others:

- [1] Jian Z, Lu Y, Qiao Y, et al. TSC-VEE: A TrustZone-Based Smart Contract Virtual Execution Environment[J]. IEEE Transactions on Parallel and Distributed Systems, 2023.
- [2] Liu Z, Lu Y, Xie X, et al. Trusted-dnn: A trustzone-based adaptive isolation strategy for deep neural networks[C]//Proceedings of the ACM Turing Award Celebration Conference-China. 2021: 67-71. *Best Paper Award*.
- [3] Xueshuo X, Jiming W, Junyi Y, et al. AWAP: Adaptive weighted attribute propagation enhanced community detection model for bitcoin de-anonymization[J]. Applied Soft Computing, 2021, 109: 107507.
- [4] Jin Z, Xie X, Fang Y, et al. WIP: Sysnif: Constructing Workflow from Interleaved Logs in Intelligent IoT System[C]//2021 IEEE 22nd International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM). IEEE, 2021: 264-267.
- [5] Wang J, Xie X, Fang Y, et al. Attribute Propagation Enhanced Community Detection Model for Bitcoin De-anonymizing[C]//Machine Learning for Cyber Security: Third International Conference, ML4CS 2020, Proceedings, Part I 3. Springer International Publishing, 2020: 607-622.

- [6] Xie X, Fang Y, Jian Z, et al. Blockchain-driven anomaly detection framework on edge intelligence[J]. CCF Transactions on Networking, 2020, 3: 171-192.
- [7] Li T, Wang H, Fang Y, et al. Block-gram: Mining Knowledgeable Features for Smart Contract Vulnerability Detection[C]//International Conference on Smart Computing and Communication. Cham: Springer Nature Switzerland, 2022: 546-557.

Internship experiences

Central Research Institute, 2012 Lab

Network/System group

Distributed training for large-scale models, MoE training optimization.

Huawei Technologies Co. Ltd

2023.06 - 2023.08

Awards

National Scholarship for Doctoral Students (2/122)

2023.10

The First Prize Scholarship of Nankai University (10/122)

2023.10

Outstanding post-graduate of Nankai University (6/122)

2023.10