

Mengting He

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Education

The Pennsylvania State University , State College, PA, USA	Sep 2022 – present
Ph.D., Informatics Advisor: Prof. Linhai Song	
Nanjing University , Nanjing, China	Sep 2018 – Jun 2020
M.Eng, Software Engineering Advisor: Prof. Jidong Ge	
Nanjing University , Nanjing, China	Sep 2014 – Jun 2018
B.Eng, Software Engineering	

Publications

Mengting He, Shihao Xia, Haomin Jia, Wenfei Wu, Linhai Song. "M2K: Model-Aware Symbolic Execution For Safe CUDA Kernels." (*Under Submission*)

Mengting He, Shihao Xia, Boqin Qin, Nobuko Yoshida, Tingting Yu, Yiyang Zhang, and Linhai Song. "How to save my gas fees: Understanding and detecting real-world gas issues in solidity programs." *IEEE Transactions on Software Engineering* (2025). *Accepted as a Journal-First paper at ICSE 2026.*

Shihao Xia, **Mengting He**, Linhai Song, and Yiyang Zhang. "SC-Bench: A Large-Scale Dataset for Smart Contract Auditing." In 2025 *IEEE/ACM International Workshop on Large Language Models for Code (LLM4Code)*, pp. 57-64. IEEE, 2025.

Shihao Xia, **Mengting He**, Shuai Shao, Tingting Yu, Yiyang Zhang, and Linhai Song. "SymGPT: Auditing Smart Contracts via Combining Symbolic Execution with Large Language Models." *arXiv preprint arXiv:2502.07644* (2025).

Shihao Xia, Shuai Shao, **Mengting He**, Tingting Yu, Linhai Song, and Yiyang Zhang. "AuditGPT: Auditing Smart Contracts with ChatGPT." *arXiv preprint arXiv:2404.04306* (2024).

Mengting He, Zhongyue Li, Yanshu Wei, Jidong Ge, Peitang Ling, Chuanyi Li, Ting Lei, and Bin Luo. "Evaluation system for reasoning description of judgment documents based on tensorflow CNN." In *Data Science: 5th International Conference of Pioneering Computer Scientists, Engineers and Educators (ICPCSEE 2019)*, Part I 5, pp. 518-533. Springer Singapore, 2019.

Experience

Software Engineer , Pinduoduo – Shanghai	Jul 2020 – May 2022
<ul style="list-style-type: none">Designed and implemented core e-commerce features, including favorite goods, shopping cart, and order pages	

- Refactored service architecture and optimized critical code paths to improve performance and reliability
- Designed a migration scheme for cart data and services
- Completed the large-scale migration and verified the accuracy and consistency
- Ensured system stability and resource security during high-traffic promotion periods

Software Engineer Intern, Microsoft – Shanghai

May 2019 – Sep 2019

- Designed and implemented a web platform to collect, organize, and recommend Azure-related posts for internal teams
- Built a recommendation pipeline to classify content and personalize post recommendations for group members

Technologies

Languages: Python, Java, CUDA, C++ , SQL, JavaScript, Solidity

Frameworks/Tools: LLVM, KLEE, vLLM, Transformers, Docker, Git, GDB