

Zhijie Liu

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PERSONAL PROFILE

Energetic, creative, and responsible student, currently studying at ShanghaiTech University in a graduate program. Passionate about software engineering, having two or more years of expertise, and specializing in program analysis, malware detection, fuzzing, LLMs, BCSA, and so on.

EDUCATION

ShanghaiTech University

Master of Science in Computer Science, GPA: 3.9/4.0, Specialized Course GPA: 4.0/4.0

Pudong, Shanghai

September 2022 - Current

- **Courses 2022-2023:** Program Analysis, Algorithm Design, Machine Learning, Cybersecurity
- **Courses 2023-2024:** Cryptography, Computer-aided Verification

Chang'an University

Bachelor of Science in Computer Science, GPA: 4.20/5.0 (ranking 1th)

Xi'an, Shaanxi

August 2018 - July 2022

- **Courses:** Compiler, Networking, Operating System, Database, Computer Architecture, etc.

PUBLICATIONS

CONFERENCE PROCEEDINGS

Enhancing Malware Detection for Android Apps: Detecting Fine-granularity Malicious Components

Zhijie Liu, Liangfeng Zhang, Yutian Tang*

2023 38th IEEE/ACM International Conference on Automated Software Engineering (ASE), 2023

JOURNAL ARTICLES

No Need to Lift a Finger Anymore? Assessing the Quality of Code Generation by ChatGPT

Zhijie Liu, Yutian Tang*, Xiapu Luo, Zhou Yuming, Liangfeng Zhang

IEEE Transactions on Software Engineering (2024). 2024

ChatGPT vs SBST: A Comparative Assessment of Unit Test Suite Generation

Yutian Tang*, Zhijie Liu, Zhichao Zhou, Xiapu Luo

IEEE Transactions on Software Engineering (2024). 2024

PREPRINT ARTICLES

LLM-CompDroid: Repairing Configuration Compatibility Bugs in Android Apps with Pre-trained Large Language Models

Zhijie Liu, Yutian Tang*, Meiyun Li, Xin Jin, Yunfei Long, Liang Feng Zhang, Xiapu Luo

arXiv preprint arXiv:2402.15078 (2024). 2024

EXPERIENCE

ShanghaiTech University, CATLab

Project: Android Malicious Component Detection

Pudong, Shanghai

January 2022 - Current

- Summarized the shortcomings of existing Android malware detection systems.
- Designed a new approach based on deep learning and genetic algorithm for detecting Android malicious components adaptively.
- Improved the performance and robustness of Android malware detection by up to 10% and 20%, respectively.
- Supported fine-granularity Android malicious component detection.

Tencent Keen Lab

Project: BCSA

Xuhui, Shanghai

August 2023 - Current

SKILLS

Programming C/C++ (Windows and Linux), Java, Python (PyTorch, NumPy, etc.), Assembly, SQL, Dafny, Promela, etc.

Miscellaneous Windows, Linux, Docker, JetBrains, \LaTeX (Overleaf), Microsoft Office, Git, IDA Pro, Ghidra, angr, Milvus, Spin, etc.

SERVICES

2024	Program Committee , International Conference on Software Engineering & Knowledge Engineering (SEKE)	ITALY
2023	Subreviewer , Asia-Pacific Software Engineering Conference (APSEC)	KOREA
2023	Program Committee , International Conference on Software Engineering & Knowledge Engineering (SEKE)	USA

AWARDS

2023	Outstanding Student , Graduate Scholarships, ShanghaiTech University	China
2022	Outstanding Thesis Award , Undergraduate Research Scholars, Chang'an University	China
2022	Outstanding Graduate Award , Undergraduate Scholarships, Chang'an University	China
2022	The Second Class Prize Winner , ASC22 Student Supercomputer Challenge	China
2021	National Scholarship , Undergraduate Scholarships, Chang'an University	China
2021	Meritorious Winner , 2021 Interdisciplinary Contest in Modeling	USA
2020	National Scholarship , Undergraduate Scholarships, Chang'an University	China
2019	Second Prize of Zhaoshang-Road Scholarship , Undergraduate Scholarships, Chang'an University	China