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 *Pudong, Shanghai*

Master of Science in Computer Science, GPA: 3.9/4.0, Specialized Course GPA: 4.0/4.0 *September 2022 - Current*
- **Courses 2022-2023:** Program Analysis, Algorithm Design, Machine Learning, Cybersecurity
- **Courses 2023-2024:** Cryptography, Computer-aided Verification

Chang'an University *Xi'an, Shaanxi*

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

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

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
    arXiv preprint arXiv:2307.00588 (2023). 2023

ChatGPT vs SBST: A Comparative Assessment of Unit Test Suite Generation
    Yutian Tang*, Zhijie Liu, Zhichao Zhou, Xiapu Luo
    arXiv preprint arXiv:2307.00588 (2023). 2023

EXPERIENCE

ShanghaiTech University, CATLab *Pudong, Shanghai*

Project: *Android Malicious Component Detection* *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 *Xuhui, Shanghai*

Project: BCSA *August 2023 - Current*

SKILLS

Programming   C/C++ (Windows and Linux), Java, Python (PyTorch, NumPy, etc.), Assembly, Structured Query Language, etc.
Miscellaneous   Windows, Linux, Docker, JetBrains, LaTeX(Overleaf), Microsoft Office, Git, IDA Pro, Milvus, 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*