

# 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, and so on.

## Education

### ShanghaiTech University

Master of Science in Computer Science, GPA: 3.89/4.0

• **Courses:** Program Analysis, Algorithm Design, Machine Learning, Cybersecurity

Pudong, Shanghai

September 2022 - Current

### Chang'an University

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

• **Courses:** Compiler, Networking, Operating System, Database, Computer Architecture

Xi'an, Shaanxi

August 2018 - July 2022

## 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

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

**Project:** Android Malicious Component Detection

- 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.

Pudong, Shanghai

January 2022 - Current

### Tencent Keen Lab

**Project:**

Xuhui, Shanghai

August 2023 - Current

## Skills

**Programming** C/C++ (Windows and Linux), Java, Python (PyTorch, NumPy, Scikit-learn, etc.), Assembly, Structured Query Language, Cypher.

**Miscellaneous** Windows, Linux, Bash Shell, JetBrains,  $\text{\LaTeX}$ (Overleaf), Microsoft Office, Git, IDA Pro, Matlab.

## Services

2024 **Program Committee**, International Conference on Software Engineering & Knowledge Engineering (SEKE)

USA

2023 **Program Committee**, International Conference on Software Engineering & Knowledge Engineering (SEKE)

USA

## Awards

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