LINKE LI

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RESEARCH INTERESTS

My research interest lies in open source software security, building upon my prior experience in compiler security. I aspire to explore innovative strategies for enhancing the security of open source projects, contributing to the robustness of software ecosystems.

EDUCATION

Nanjing University *2021-2024*
Master Student in Computer Science, advisor : Professor Bing Mao

Xi'an Jiaotong University *2017-2021*
Bachelor's Degree in Computer Science
GPA:3.57(86.35/100)

PROJECTS

Compiler Introduced Vulnerabilities Detection May 2022 - July 2023

- We propose a novel detection technique based on LLVM's debug information system, which can efficiently identify security vulnerabilities introduced by compilers in the target program before and after compiler optimization.

Study of Compiler Introduced Security Bugs September 2021 - February 2022

- We perform a comprehensive study on compiler-introduced security bugs(CISB) and their root causes. We collect a large set of CISB in the wild by manually analyzing 4,827 potential bug reports of the most popular compilers (GCC and Clang), distilling them into a taxonomy of CISB.

PUBLICATIONS

Cross-Version Detection for Compiler-Introduced Vulnerabilities

- Jianhao Xu, **Linke Li**, Kunbo Zhang, Bing Mao
- Submitted to Journal of Software(In Chinese)

Silent Bugs Matter:A Study of Compiler-Introduced Security Bugs

- Jianhao Xu, Kangjie Lu, Zhengjie Du, Zhu Ding, **Linke Li**, Qiushi Wu, Mathias Payer, Bing Mao
- In Proceedings of The 32nd USENIX Security Symposium (Security'23).

ACHIEVEMENTS

Second Prize in College Student Mathematical Contest(Non-Mathematics Category) *December 2020*
Excellent Student of Xi'an Jiaotong University *November 2019*
First Prize in Xi'an Jiaotong University Mathematical Modeling Competition *May 2019*
Third Prize Scholarship of Xi'an Jiaotong University *2018,2019,2020*

SKILLS

Programming C/C++, Python, LLVM, Static analysis
Tools ghidra, git, Docker