

XIANG CHEN




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EDUCATION

The Hong Kong University of Science and Technology Ph.D. student in Prism Lab, CSE, supervised by Charles Zhang.	2024/08 - now
Shanghai Jiao Tong University Master degree in Cyber Security, supervised by Yue Wu and Jiaping Gui. Thesis: C/C++ system software Static analysis techniques through the lens of Integer Overflow Detection	2021/09 - 2024/03
Shanghai Jiao Tong University Bachelor degree in Information Security, selected to the Zhiyuan Honor Program. Thesis: Vulnerability Detection and Analysis for Massive Large-scale IoT Devices	2017/09 - 2021/06
Peking University Summer School	2019/07 - 2019/08

PUBLICATIONS

- **Xiang Chen**. 2024. IntTracer: Sanitization-aware IO2BO Vulnerability Detection across Codebases. In 2024 IEEE/ACM 46th International Conference on Software Engineering: Companion Proceedings (ICSE-Companion '24)  
- Tianming Zheng, Haojun Liu, Hang Xu, **Xiang Chen**, Ping Yi, Yue Wu, Few-VulD: A Few-shot learning framework for software vulnerability detection, Computers & Security, 2024 

SERVICES

NDSS '26 Artifact Evaluation Committee	2025/07 - 2025/12
CCS '25 Artifact Evaluation Committee	2025/06 - 2025/07
OSDI '25 Artifact Evaluation Committee	2025/04 - 2025/05
PLDI '25 Artifact Evaluation Committee	2025/03 - 2025/04
USENIX Sec '25 Artifact Evaluation Committee	2025/01 - 2025/08
China Computer Federation (CCF) Student Chapter in SJTU, Executive Committee	2022/11 - 2023/12
GeekPwn 2020 volunteer	2020/10

INDUSTRY EXPERIENCE

Hong Kong University of Science and Technology Research assistant in the Clearblue project. My job is to port the analysis framework to modern LLVM infrastructures.	2024/06 - 2024/08
NIO Inc. Funding project "decreasing FP and FN rates in static C/C++ program analysis" from Cyber Security Academy Student Innovation Grant Program. The project focuses on using Facebook Infer's Abstract Interpretation framework and taint analysis technique in detecting Uninitialized Value issues in Linux Kernel.	2022/10 - 2023/10
Huawei Technologies Co., Ltd. Develop and maintain rules for enterprise-domestic C/C++ static analysis tools and apply them to 5G base station codebases. Research on Large Language Model-assisted program analysis on customized memory management functions.	2023/07 - 2023/09
Shanghai Qizhi Institute G.O.S.S.I.P Research Internship, doing weekly paper reading and research on (1) automatic program repair using LLVM Pass and Daikon invariant detector and (2) automatic bug fix for use-after-move issues in C++ 11 using Clang-Tidy.	2022/07 - 2022/11
Shanghai Feysh Technology Co.,Ltd Manually review more than 4000 analysis results of ClangStaticAnalyzer performed on Juliet C/C++ Test Suite. Implement four ClangStaticAnalyzer checkers for SEI CERT C Coding Standard.	2021/07 - 2021/09

TEACHING EXPERIENCE

COMP 3021: Java Programming Design course project: an LLM chat client that supports configurable persistence, large-scale functional, and parallel querying.	2025/01 - 2025/06
IS308: Computer System Security (The first "John Hopcroft" Class)	2023/02 - 2023/06

Provide mentorship on five labs in binary/web security and cryptography. Host a CTF-style final exam.

NIS7021: Software and System Security

2022/10 - 2023/01

Design two labs in reverse engineering and binary hardening using LLVM.

OPEN-SOURCE CONTRIBUTIONS

Open Source Promotion Plan (openEuler)

2023/07 - 2023/09

Enhance LLVM InstCombine pass with a peephole optimization, which can eliminate `abs()` in ternary expressions like: `x>y?abs(x-y+1):0` and combine the original if-else-branch to linear CFG using the AArch64 `csinc` instruction.

SJTUBeamer

2021/04 - 2021/11

The Shanghai Jiao Tong University official L^AT_EX beamer template with more than 600 stars.

TALKS

- Xiang Chen, Siqi Ma. 2023. Custom Memory Functions Demystified: A tutorial of memory corruption detection using Goshawk. In ACM ASIA Conference on Computer and Communications Security (ASIA CCS '23)
- Xiang Chen. 2023. C/C++ static analysis with LLVM compiler infrastructure. Voice of Information Security-Young

AWARDS

Postgraduate Scholarship (PGS)	2024/09 - now
Shanghai Jiao Tong University Outstanding Graduate (<10%)	2024/03
Rong Chang Leadership Scholarship (<1%)	2021/11 - 2023/11
DEFCON CTF 30 2nd place (played with Katzebin)	2022/08
Zhiyuan Honor Bachelor Degree (Cum Laude, <1%)	2021/06
Shanghai Outstanding Graduate (<5%)	2021/06

SKILLS

- Programming Languages: C/C++ ≥ Python > Java, Rust, OCaml
- Development Toolchains: VSCode, Vim, CMake, LLVM/Clang, GDB, Docker, Git
- Capture-The-Flag: IDA/Binja, Pwntools, Angr, Wireshark, Sage