

Li-Chang (Alex) Lai

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EDUCATION

National Taiwan University, B.S. in Computer Science and Information Engineering 2020 Sep. - present
Cumulative GPA: 3.93/4, 4.08/4.3
Outstanding Performance Award 2022 Dec.

EXPERIENCE

Undergraduate Researcher @Group Fuzzing & Symbolic, Network Security Lab 2022 Feb. - present
Computer Security Teaching Assistant @NTU CSIE 2022 Fall
Summer Intern Formal Verification of Cryptography Programs @IIS, Academia Sinica 2022 Jul. - 2022 Aug.
Data Structure&Algorithms Teaching Assistant @NTU CSIE 2022 Spring
Head TA of programming group 2023 Spring
- Outstanding Teaching Assistant Award 2022 Spring

SKILLS

Programming Languages C, C++, Python, Shell Script, Golang, Node.js
Tools & Frameworks Git, gdb, Flask, Pytorch
Others Reverse Engineering, Formal Verification

PROJECTS

Cryptoline Ocaml [Github](#) 2022 Jul. - 2023 May.

- **Library Verification:** verify Golang, OPENSLL's crypto library(written in assembly for acceleration) with mathematically-proved system.
- **Block Function Verification:** using logical equivalence checking for verifying block functions(e.g. hash functions), and accelerate from 7200+ hrs to 100 hrs on average.

General-Styler Pytorch, Computer Vision 2023 Spring

- **Open-set Style:** Inference styles from natural language.
- **Train with text only:** Take advantage of CLIP. Use contrastive learning to align text and image embedding into a same space.
- **Multi-Modality:** Understand both text and image embedding.

NTU CSIE Camp Challenge Game Python, Pygame [Github](#) 2021 Jul. - 2022 Jan.

- **Structure Design:**design the tutorial and problem structure that enable participants(high school students) to learn and develop a game with API
- **UI design:** development of interactive game with special visual effect with stable FPS.

Learning Golang binary routine from malware Chaos Reverse Engineering 2022 Spring

- **static analysis:** Use IDA decompiler to trace control flow and find special pattern on a striped binary.
- **dynamic analysis:** Use Wireshark and gdb to trace packets and trace go routine.

ACTIVITIES

- Minister of Academic Department, NTU CSIE 45th Student Association.
- Participated in several CTF(Capture The Flag) Competitions e.g. DEFCON CTF, Google CTF
- Member of CTF Team [Balsn](#), major in Reverse Engineering.