

SUMMARY

Student and systems engineer with passions in secure and distributed systems, cryptography, and programming languages. Proficient in low-level systems programming languages such as C/C++ and Rust, full-stack web development, penetration testing, and Linux systems administration. Looking to harness leadership capabilities and problem-solving skills to write impactful and research-oriented open-sourced code for a more technically-capable future.

CONTACT

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📍 New York City
🔗 ex0dus-0x

EDUCATION

Francis Lewis High School Sept.2015 to Current
General Studies
GPA: 4.0 / 4.0 (96.5)

Farmingdale State University Sept.2017 to June.2018
Finance
Advertising Practice and Application,
Graphic Design for Non-Majors,
Principles of Economics (Macro)

The Cooper Union July.2017 to Aug.2017
Electrical Engineering

SKILLS

LANGUAGES: C/C++, Rust, Python, x86 Assembly, Golang, HTML, CSS/Sass, JavaScript, OCaml

TOOLS & TECHNOLOGIES: Bash, Docker, Express, Flask, Git, Heroku, Jekyll, Make, Node.js, QEMU/KVM, Travis CI, Ubuntu Server, Unit testing

OTHER:

Technical writing / presentation, English, Chinese Mandarin

WORK EXPERIENCE

NYU Secure Systems Lab Research Intern

New York University
May.2018 to Current

Under guidance of Professor Justin Cappos, The NYU Secure Systems Lab conducts research in discovering security solutions for threats in modern-day software systems. Collaborated with PhD candidate on building crash replay system using Python and C. Independently worked on distributed password management protocol research project.

Virtual Enterprise International VR Developer (contract)

Remote
April.2018 to May.2018

Virtual Enterprise International is a nonprofit organization dedicated to supporting student-led Virtual Enterprise firms. Collaborated on Virtual Reality Experience for tradeshow marketing using the Metaverse platform and JavaScript.

Nuapps Software Engineer

Francis Lewis H.S
Sept.2017 to Current

Nuapps is a student-led Virtual Enterprise app development firm. Led development on several cutting-edge apps Introduced team to working with industry-level technologies, including version control and unit testing. Collaborated on building hardware arcade machine for tradeshow marketing.

Francis Lewis H.S I.T. Internship

Francis Lewis H.S
June.2016 to June.2018

Provided software and hardware technical support for 5,000+ population school. Troubleshooted and diagnosed Windows 7 / macOS issues. Gained knowledge of server administration and the TCP/IP network stack. Assisted Patriot Battalion with website administration.

VOLUNTEERING

lewHacks()

Francis Lewis H.S
March.2017 to Current

Co-Founder and Director of Technology
lewHacks() is a student-led high school hackathon for Francis Lewis High School. Led development of hackathon tech stack, including front-end, and project management platform (JavaScript). Provided guidance to participants. Managed non-tech logistics for events, including sponsorship interaction and reward distribution.

PROJECTS

CrashSimulator

Crash-based record-replay system that enables debugging through anomaly injection (in conjunction with the NYU Secure Systems Lab).

Ghostpass

Dead simple two-round password management cryptographic protocol that focuses on security and portability.

dedsplit

Penetration testing framework built for attacking network protocols.

coremachines

Collection of open-sourced low-level userspace utilities for Linux operating systems, including both applications, daemons, and API/ABI libraries.

lagrange

Research-based library (including bindings) for Lagrange polynomial interpolation within finite fields.