

Experience

2023 Security Engineer — Tools for Humanity née Worldcoin

- Reviewed Rust cryptographic code securing protected health information for Orb.
- Secured sensitive component, implementing cloudstore-to-device end-to-end.
- Drove internal communication with teams to remediate vulnerabilities.

2020 - 2022 Security Consultant — Leviathan Security Group

- Found bugs in client software on engagements ranging from 3 weeks to 3 months.
- Embedded directly into large client security teams for staff augmentation engagements.
- · Focused on web browsers, APIs, and virtual reality.
- Promoted from level three to level four in 15 months.
- Internal-company award "Destroyed Project" for a high score on number of critical bugs.

2018 Software Engineering Intern (Remote) — GRIMM (SMFS, Inc.)

- Developed "Killerbeez" fuzzing framework and wrote conference submissions, documentation.
- Simplified build system and streamlined API amidst work by other developers.
- Made the fuzzer cross-platform, porting it to Linux and Mac.

2017 Research Intern — Network Security Research Group

- Reverse engineered 10+ cable modems from a large telecom provider.
- Analyzed firmware and memory dumps to extract filesystems and develop exploits.
- Found 30+ CVE-worthy vulnerabilities, enabling WiFi-range root on affected devices.

Education

2015 - 2019 **Bachelor's, Computer Engineering** — University of Illinois at Urbana-Champaign

3.30 GPA

- Chancellor's Scholar Selective (top 2% of class) honors program.
- Undergraduate TA Taught other students data structures and operating systems.
- · Completed research projects and self-study in security and systems coursework.

Activities

SIGPwny President (Security Club)

sigpwny.com

- Presented on UIUC student privacy at THOTCON 8, a 1,000+ attendee industry conference.
- Presented on radical kindness in university security clubs at Cyphercon 4.
- Developed and taught security exercises every week to a classroom of 20-40 students.
- Founded senior group developing custom fuzzers for major operating systems and web browsers.
- Obtained \$5,000 in funding to buy a server, install it in a datacenter, and train sysadmins.
- Obtained \$5,000 in funding to take a group of 10 underclassmen to their first security conference.

DDRIllini Treasurer (Rhythm Game Club)

ddrillini.club

- Ran 3 yearly international tournaments of 130+ entrants, growing them about 10% each year.
- Developed VR tech demo, tournament software, and features/bugfixes for open source project.
- Managed \$5,000 budget. Maintained Linux game cabinet, teaching 20+ others maintenance skills.

Skills

Programming Python, C, x86/RISC-V ASM, Lua, C++, Haskell, SystemVerilog, Ruby, HTML, JS, CSS, SQL, Rust

Tooling Git, gdb, CMake, Bash, Flask, AWS, IDA / Binja / radare2 / Ghidra, Wireshark
Languages English (native), Spanish (B2), Polish (B1), Japanese (B1), German (A1)

Most recent version: klatz.co/resume Work authorization: US, EU Last updated March 6, 2024