

# Alexis GUERIN

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## MOTIVATIONS

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Currently seeking an **internship** position in cybersecurity for 6 months starting from **February 2026**. I'm aiming to contribute to innovative projects at the intersection of **vulnerability research** and **exploit development** on targets such as hypervisors, the Linux Kernel, XNU, browsers and more.

## EDUCATION

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### SeoulTech

*Unix system, OS design, Korean language, Computer Engineering*

- Algorithms, C programming, operating systems, network architecture, mathematics, physics

Seoul, South Korea

*Feb 2024 — July 2024*

### ESIEA

*Undergraduate for MSc. in Cybersecurity Engineering*

- Algorithms, C programming, operating systems, network architecture, mathematics, physics

Laval, France

*Sep 2021 — Sep 2026*

## WORK EXPERIENCE

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### Hypervisor security research

Out of Bounds

Apr 2025 — Aug 2025

*Seoul, South Korea*

- Hypervisor fuzzing using kAFL/nyx targeting the VirtualBox USB subsystem (xHCI)

### N-day exploit development internship

eShard

Jun 2023 — Aug 2023

*Bordeaux, France*

- ARM, Reverse Engineering, exploit development
- Implemented an exploit for a N-day vulnerability targeting the android TEE

## PROJECTS

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### Active player, Capture The Flag Competitions

2019 — Present

- Leader of teams Hexagon (Top 3 France 2023) and ret2school (Top 6-15 France 2020-2023)
- Focused on binary Exploitation (kernel, heap), Reverse Engineering
- Writeup example: File stream exploitation using [\\_IO\\_obstack\\_jumps](#)

### Kernel fuzzing

2024 — Present

- Linux kernel fuzzing (crypto drivers, SCTP stack) using Syzkaller and kAFL/nyx.

### Hardware analysis

2025 — 2026

- School project as part of the [ESIEA's cybersecurity lab](#). Analysis of several hardware devices (routers, smart doorbells, etc).

### Linux DBI engine

- Linux dynamic binary instrumentation engine supporting syscall, basic block and instruction hooking, [available here](#).

### Side projects

- [Polymorphic packer for ELF](#), [a manual mapper](#) in Rust, my [YouTube channel](#) (french) about reversing / pwn, [my blog](#).

## SKILLS

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- Programming Languages:** C, Assembly (MIPS, x86, ARM)}, Rust, Nix, python, LLVM
- Fuzzing:** Syzkaller, kAFL/nyx, libfuzzer
- Exploit development:** Linux heap and kernel exploitation, hypervisor exploitation
- Tools:** IDA, gdb, pwntools, WindDBG, x64dbg, binaryninja
- Languages:** French (native), English (professional), Korean (intermediate)