Theo Marcos

Systems developer | Rust

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Profile

Systems developer focused on Rust, with experience building production tools, open-source libraries, and low-level components.
I'm interested in reliability, security, operating systems, and software engineering close to the machine.

1 Experience

QuickSign *2024 – Present*

Rust Developer

- Built a Rust plist generator with `hyper`.
- Developed **libqsign**, a Rust library for signing iOS IPA files.
- Designed tools focused on reliability, security, and automation.

Independent Projects *2023 – Present*

- Location tracking platform with a Rust backend (`actix_web`) and Android app.
- More than **two years of continuous uptime**.

apnrs

- Rust implementation of Apple Push Notification Service (APNs), used in production with around **7,000 downloads**.

2 Technical Experience

Operating Systems

- x86 operating system in C and assembly: scheduler, interrupts, ELF loading, bootloader, and filesystem.
- Debugging and validation with QEMU and GDB.

Compilers and Languages

- C preprocessor in Python and an interpreter for a Rust-inspired functional language.
- Experience with functional, procedural, and object-oriented programming.

Security

- Ranked in the **top 800 worldwide** on Hack The Box.

3 Pinned Projects

- **mboot** – C bootloader.
- **apnrs** – Rust implementation of the Apple Push Notification Service protocol.
- **knockrs** – port knocking multiplexer written in Rust.
- **i-drive** – SSD1306 driver for the Raspberry Pi kernel and I^2C.

4 Education

Collège et École de Commerce André-Chavanne *2023 – Present*

Physics option, bilingual program

Institut Florimont *2019 – 2023*

5 Skills

Languages: Rust, C, Python, JavaScript, Lua, Shell, x86 assembly
Tools: Git, Linux, GDB, QEMU, NASM, Android, (Neo)Vim
Areas: Operating systems, systems programming, compiler and language design, security

6 Spoken Languages

- French (native)
- English (fluent)
- Italian (comprehension)
- Mandarin (comprehension)

7 Interests

- **Music** – Guitarist in a rock band.
- **Sailing** – Member of the Yacht Club de Genève.
- **Target shooting** – Member of the youth shooting group at the Arquebuse Society.