Ludovic Provost

✉ ludovic.provost8@gmail.com | ⌂ ludoprovost.github.io | 🔗 linkedin.com | ⌨ github.com/LudoProvost

Education

University of Ottawa, BASc. in Computer Engineering — April 2025
- **Courses:** Real-time Programming, OS, Networking, Systems Design, Computer Architecture, ML
- **CGPA:** 9.5 / 10.0

Skills

- **Languages:** Python, C++, C, Rust, Java, SQL, Bash, VHDL, Verilog
- **Technologies:** Linux (Ubuntu/Debian/Arch), Matlab, Quartus, ModelSim, Vivado, Jira, Jenkins, Wireshark, Logic2, KiCad, Docker, Node.js, React, Oracle Cloud

Experience

Embedded Systems Engineer — Jan 2023 – Aug 2024
Freelance — Ottawa, Ontario
- Designed the software of Arm embedded devices to fit system needs
- Collaborated with engineers to select appropriate solutions to ensure reliability and safety
- Designed, prototyped, and tested PCBs and schematics using KiCad and Fusion360

CI/CD Software Developer Intern — Sept – Dec 2022
Intact Financial Corp. — Québec City, Québec
- Implemented job scheduling, process automation and an alert system in case of failure
- Documented code, processes, and permissions in accordance with company standards
- Maintained pipelines and migrated services and tools to ensure safety

Application Developer Intern — May – Aug 2022
Brookfield Renewable Partners — Gatineau, Québec
- Resolved application issues, ensuring functionality across test cases and improving system reliability
- Managed SQL databases, optimizing queries and maintaining data integrity
- Collaborated with development teams to identify solutions, enhancing user experience

I.T. Technician — May – Nov 2021
Élections Québec — Québec City, Québec
- Installed system images and set up laptops for new employees onboarding
- Repaired and maintained computer equipment through troubleshooting
- Configured BIOS settings to manage boot order and secure boot

Projects

Embedded & Electronics — C, C++, Rust, UART, SPI, I2C
- Debugged and tested various projects using a logic analyzer and a port reader
- Wrote drivers for hardware components using datasheets and register maps

Software & Algorithms — Python, Rust, C, TCP/IP, UEFI
- Performed real-time signal processing and used multi-threading for a beat detection algorithm
- Completed a variety of capture the flag challenges using various Linux distros and tools
- Writing a custom bootloader and OS using C and the UEFI specifications

School Projects — FPGA, Verilog, Vivado, Python
- Designed a single-cycle and a 5-stage pipelined MIPS processor in VHDL
- Developed services and an embedded system for smart appliances
- Designed a UART and a traffic light controller in VHDL