

# Ludovic Provost

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## Education

### University of Ottawa, BAsC. in Computer Engineering

April 2025

- **Courses:** Real-time Programming, OS, Networking, Systems Design, Computer Architecture, ML
- **Nominated** as the top student in my program
- **CGPA:** 9.45 / 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