

# Ludovic Provost

## Computer Engineering

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## Skills

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- **Languages:** Python, C++, C#, C, Java, SQL, SQLite, PL/SQL, R, Groovy, GraphQL, VHDL, Verilog
- **Tools:** Linux (Ubuntu), Quartus, Matlab, Jira, Postman, Red Hat OCP, Jenkins, Fusion360, KiCad, Wireshark, Vivado, Keil
- **General skills:** Leadership, teamwork, Communication, Organization

## Education

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### University of Ottawa, BAsC. Computer Engineering

September 2020 – May 2025

- CGPA : **94%**
- Part of the Dean's Honor List for 5 consecutive semesters

## Experiences

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### I.T. Technician

May 2021 – November 2021

Élections Québec

- Repair and maintenance of computer equipment
- Customer service using Cisco Finesse, MS Teams, and Outlook to communicate with users
- Use of Azure Active Directory (Azure AD) and Microsoft System Center Configuration Manager (SCCM)

### Internship in Application Support

May 2022 – August 2022

Brookfield Renewable Partners L.P.

- Used PL/SQL scripts to recover information in the company's database

### Internship as CI/CD Software developer

September 2022 – December 2022

Intact Financial Corporation

- Identified and resolved issues related to pipelines, services, the company's website and its tools
- Implemented automated tasks, automated tests, and a failure alert system
- Migrated services from Log4j to Logback
- Documented code, processes, and permissions in accordance with company standards

## Projects

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### Sudoku Matrix Encryption/Decryption Algorithm | Python

- Implementation of lossless image encryption and decryption algorithms done in Python

### VGA Controller and Basic Shape Rendering | Python, Verilog

- Design of a VGA controller in Verilog using references from Altium's VGA controller
- Implemented a PPM file to PNG format tool in Python

### UART Design for Traffic Light Controller | VHDL

- Designing of a UART in structural VHDL to allow a traffic light controller to communicate debug messages via a port on a computer
- Schematics, simulations as well as the problems encountered are all provided on my Github

### LED Matrix Design on custom PCB | KiCad, Fusion360

- Designed schematics which include circuit protection, voltage regulation, and the LED matrix
- Created custom footprints in Fusion360
- Used the KiCad PCB editor to design the printed circuit board

**Note:** More projects are on display on my Github.