

# Massylia Mahdi

37 Framfield Crescent, Kanata, ON

[✉ massylia.mahdi04@gmail.com](mailto:massylia.mahdi04@gmail.com) [in/massylia-mahdi](https://in/massylia-mahdi) [MassyliaMahdi](https://www.linkedin.com/in/massylia-mahdi/) [massylia.github.io](https://github.com/massylia)

## Education

### Bachelor of Applied Science – Computer Engineering (4th Year)

Sep 2022 – May 2026

University of Ottawa, Ottawa, ON

## Technical Skills

- **Programming & Software:** Python, Java, C, C++, HTML/CSS, Go (learning), JavaScript/TypeScript, ReactJS, Node.js, Firebase, SQLite, MySQL, Assembly, VHDL, Matlab
- **Developer Tools:** Git, Linux, Android Studio, Jira, Microsoft Office, VMware, Cisco Packet Tracer, Wireshark

## Projects

### MediTrack Dispenser

Fall 2025 – Present

- Designed and implemented a smart medication dispenser integrating Raspberry Pi, ESP32, sensors, NFC/BLE bracelet, stepper motor, and a React–Firebase mobile app
- Designed a secure hardware–software architecture with access control, data protection, and operational traceability
- Implemented Firebase Authentication for multi-role access (Patient, Doctor) with real-time Firestore logging of schedules and intake
- Applied Agile methods, GitHub CI/CD, and automated tests to validate hardware–software integration

### On-Demand Custom PC Service / Android App

Fall 2024

- Developed a Java mobile app with role-based authentication and SQLite database for real-time inventory and order management
- Created UML diagrams (class, activity, sequence) to model system architecture and workflows
- Integrated animations to enhance user experience (splash screen, screen transitions) using XML

### UART Communication System – FPGA/VHDL

Fall 2024

- Designed UART modules with baud rate generator and address decoder, integrated with traffic light FSM
- Developed automated testbenches and simulations in ModelSim/Quartus, verified signal timing and synchronization

### Pipelined RISC Processor – VHDL

Winter 2025

- Implemented a 5-stage pipelined RISC processor with hazard detection and forwarding units
- Verified functionality and timing using Quartus II; demonstrated instruction execution on FPGA

## Experience

### Shared Services Canada/Government of Canada

Ottawa, ON

#### Junior IT Analyst

Jan 2024 – Aug 2024

- Developed and maintained a SharePoint site with an intuitive interface and optimized content
- Leveraged Microsoft 365 apps to improve team collaboration and streamline project management
- Resolved technical challenges and design issues during development, ensuring timely project delivery
- Organized and hosted Teams meetings for communication and align team efforts with project goals

### City of Ottawa

Ottawa, ON

#### Service Representative

Sep 2023 – Present

- Handled registrations, payments, and customer inquiries (~10+ interactions/day)
- Recommended programs and services based on client needs and maintained accurate records

### The Royal Canadian Mint

Ottawa, ON

#### Boutique & Tour Guide

Summer 2023, 2025

- Delivered bilingual guided tours, explaining coin production and history to diverse audiences
- Promoted and sold Mint products, achieving high visitor satisfaction

## Languages & Certifications

- **Languages:** Fluent in English and French
- **Security Clearance:** Government of Canada Reliability Status (Active)