

MELANIE MALEK

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EDUCATION

University of Ottawa

Ottawa, ON

Bachelor of Applied Science in Software Engineering (Co-op)

Sept. 2023 – Dec. 2027

- GPA: 3.64/4.0 (Dean's List)
- Relevant Courses: Data Structures & Algorithms, Databases, Computer Architecture, Operating Systems

EXPERIENCE

Project Engineering Student – Electronic Warfare

May 2026 – Aug. 2026

Government of Canada – Department of National Defence

Gatineau, QC

- Completed a **PMBOK-based project management program** to optimize operations across the Electronic Warfare submarine division.
- Engineered an **AI-powered supplier-sourcing agent** with **Copilot**, automating workflows and elevating resource efficiency.
- Delivered a fully deployed AI automation tool that sharply reduced manual overhead.

Tools & Automation Software Developer

Sept. 2025 – Dec. 2025

Nokia

Ottawa, ON

- Designed, implemented, and prototyped internal web applications, dashboards, and scripts using **REST APIs** to enhance organizational workflows, **reducing manual operational tasks by 40%**.
- Built and maintained cloud-native solutions using **Kubernetes, Helm, OpenStack, Flask, Django, and Python**, supporting production and staging environments.
- Delivered new platform features and enhancements that **accelerated daily workflows** and improved turnaround time for internal requests.

QA Automation Tester

Jan. 2025 – April 2025

Government of Canada – Global Affairs Canada

Gatineau, QC

- Developed automated **Selenium (Java) test suites** covering critical application workflows across QA and production environments.
- Identified, logged, and tracked defects with detailed reproduction steps, contributing to **higher release stability** and fewer post-deployment issues.
- Increased regression testing efficiency** by significantly reducing manual test execution time, enabling faster release validation.

Software Engineering Intern

May 2024 – Dec. 2024

Government of Canada – Department of National Defence

Ottawa, ON

- Supported enterprise-scale **SAP systems** by performing system configurations that ensured stable production performance.
- Scheduled and managed **batch jobs** across QA and Sandbox systems, directly supporting major and minor software releases.
- Implemented **enhanced error-handling mechanisms** that improved fault tolerance and reduced repeat incidents.

PROJECTS

eHotel / PostgreSQL, Node.js, React

Jan. 2026 – April 2026

- Developed eHotel, a responsive booking platform with **guest user accounts, employee/admin dashboards, and role-based access controls**.
- Built **RESTful APIs** and a **React** frontend with authentication, server-side validation, and employee features for inventory, pricing, and reservation management.

Parking Lot Management System / Java, JUnit

Sept. 2024 – Dec. 2024

- Parking lot management system with **file-based data ingestion, real-time space tracking**, and JUnit tests to improve reliability and performance.

TECHNICAL SKILLS

Languages: Java, Python, SQL (Postgres), JavaScript, HTML/CSS, SAP ABAP

Frameworks: React, Node.js, Flask, JUnit, Django, OpenStack, Selenium, REST API

Developer Tools: Git, Docker, VS Code, Linux, Eclipse, Kubernetes, PostgreSQL, Jira, Azure DevOps

AI Tools: GitHub Copilot: AI-assisted triage, testing, and debugging with efficient token usage

Other: English, French, Arabic