

Mohamad Deifallah

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EDUCATION

Carleton University

Ottawa, ON

Bachelor of Computer Science Major

Expected Graduation: April 2026

- **Relevant Coursework:** Data Structures, Algorithms, Databases, Design of User Interfaces, Software Requirements Analysis, Software Design and Architecture, Intro to Artificial Intelligence

TECHNICAL SKILLS

Languages: Python, Java, C, C++, Javascript, SQL

Frameworks: Node.js, React, Django, Spring, Flutter, Bootstrap

Developer Tools: Git/Github, Kubernetes, AWS, Azure, LaTeX, VS Code, Emacs, IntelliJ, QNX RTOS, Raspberry Pi, Microsoft Access and Power BI

WORK EXPERIENCE

Junior Information Management Technologist Intern

Oct 2024 – Dec 2024

Natural Resources Canada

Ottawa, ON

- Designed dynamic sub-report selection table in Microsoft Access, optimizing data retrieval, report generation, and manual processing which resulted in 30 % efficiency improvement as measured by reduced processing time
- Developed VBA automation scripts in Microsoft Access, enhancing code modularity, database automation, and user interface which resulted in 25 % reduction in configuration steps as measured by manual adjustment frequency
- Implemented SQL-based filtering techniques and alternative form designs in collaboration with project leads, improving data filtering, report customization, and automation which resulted in 15 % process efficiency gain as measured by query turnaround time reduction

Junior Software Developer Intern

Jan 2024 – Apr 2024

National Research Council Canada

Ottawa, ON

- Developed web application using HTML, CSS, and JavaScript, streamlining frontend integration, responsive design, and data management which resulted in 30 % improvement in user interaction as measured by increased engagement metrics
- Developed research initiative proposals integrating strategic planning, compliance review, and feasibility analysis which resulted in 20 % increase in proposal success rate as measured by project approval frequency

PROJECT EXPERIENCE

EchoRoam | C, QNX RTOS, HTML, Javascript, Docker, CSS

Mar 2025

- Built a prototype of an autonomous rescue vehicle using QNX RTOS on Raspberry Pi 4 and ultrasonic sensors to detect obstacles and dynamically map safe routes using a real-time data logging system

D.U.C.K.I. Research Project | MS Office, Logistic Regression, Linear Regression, Neural Networks

Jan 2023

- Proposed a system that utilizes AI to provide a tailored learning experience to students
- Presented D.U.C.K.I., showcasing its innovative features such as voice input, mouth movement analysis, and interactive responses

E-Commerce Application | Java, IntelliJ IDEA

Jan 2021

- Built dynamic virtual storefront employing object-oriented design patterns for robust shopping simulation
- Developed seamless textual interface and modular architecture to streamline product browsing and checkout

Photo Editing Program | Python, Wing 101

Jan 2020

- Created interactive photo-editing tool implementing pixel manipulation and digital color processing
- Developed text-based interface with modular code structure to facilitate real-time image adjustments

LEADERSHIP EXPERIENCE

Faculty of Engineering and Design Councillor

Jan 2020 - Apr 2022

Carleton University Student's Association Inc.

Ottawa, ON

- Represented the students of Engineering and Design by being the voice of their issues and services
- Engaged in council meetings and discussed solutions facing the student body