ABDULRAHMAN AWAD

+1 (613) 410 - 8305 | abdulrahmansawad@gmail.com | LinkedIn | GitHub | Website

EDUCATION

Bachelor of Computer Science Honours - Carleton University | **4.0 GPA**   **Expected Graduation Date:** April 2026

- Persuing a specialization in Artificial Intellegence and Machine Learning
- Coursework: Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, Distributed Systems, Software Engineering, Databases, Artificial Intelligence, Machine Learning, Discrete Math, Linear Algebra, Calculus

WORK EXPERIENCE

Nokia | Network Automation Software Engineer Intern   **April 2024 - Sept 2024**

- Developed the Nokia WFM **Visual Studio Code extension** using **TypeScript**, seamlessly integrating with the Network Services Platform to optimize workflow development and delivery for **300+** Nokia network operators.
- Engineered advanced features for the extension's workflow development, including CRUD operations, validation, and execution of workflows all within the VsCode editor, levaraging the **VsCode** and **NSP API's**.
- Implemented a caching mechanism for the Nokia WFM VsCode extension, drastically reducing existing workflow data retrieval times from 100ms to **0.0001ms**.

Carleton University | Teaching Assistant   **Sept 2023 - April 2024**

- Leveraged **Python** expertise to teach core data structures, as well as functional and object-oriented programming.
- Conducted weekly tutorials, office hours, and evaluations to **50+** students to reinforce key computer science concepts.

Nokia | Delivery Automation Software Developer Intern   **May 2023 - Sept 2023**

- Developed a **Python** script to automate the population of intents in the FSS instance, saving network administrators approximately **20 hours** per network in manual labour.
- Leveraged **Python** and **Docker** to automate DHCP configurations through the command line, reducing configuration time for developers by **80%**.
- Developed a **Python library** that wraps the subprocess module, providing an efficient way to execute, run, and validate Linux commands and chain multiple commands together to create complex pipelines.

PROJECTS

Personalized A.I Chatbot Full-Stack Application   **React | Javascript | Python | API's**

- Created a personalized A.I chatbot web app by integrating the **OpenAI API** and **LangChain LLM** to allow the user to train the A.I chatbot by inputting personal data, notes, and documents.

Relational Database Optimization Engine   **Python | Sql | Postgres | pgAdmin | UML**

- Architected a database schema for soccer stats utilizing ER-modeling, and Python scripts to automate queries.
- Utilized strategic indexing, and table partitioning to achieve **99.9%** faster query execution times.

Multithreaded Hunter Game Simulation - C Systems Programming   **C | VirtualBox | SSH | Git | Github | Linux**

- Developed a complex multithreaded simulation featuring interactive hunter threads and ghosts.
- Designed efficient data structures to optimize runtime, and integrated mutexes to manage potential deadlocks.

Online Weather App   **JavaScript | Node.js | Express.js | MongoDB | API's**

- Designed a weather app website that employs encryption techniques to securely manage user accounts/passwords and utilized MongoDB to store user info. Integrated seamlessly with the OpenWeatherMap API, the application provides a platform for users to register, authenticate, and retrieve accurate and detailed weather data for any city internationally.

TECHNICAL SKILLS & CERTIFICATIONS

Languages: Python, Java, C, C++, JavaScript, TypeScript, React, Html, CSS, Sql, NoSql, Graphql,
Tools: Docker, Kubernetes, Git, Gitlab, Jira, VsCode, Intellij, MongoDB, PgAdmin, PostgreSQL, Node,
Certifications: Nokia Certified Network Routing Specialist I (NRS I) - TCP/IP | Ethernet | IP | VPN's | OSPF | BGP
Skills: Data Structures and Algorithms, Software Security, Machine learning, Databases, Optimisation, Networking