Arhaan Wazid

Ottawa, ON | (613) 265-0602 | arhaanwazid@gmail.com | linkedin.com/in/arhaan-wazid | github.com/Arhaan7

Education

Carleton University — Ottawa, ON

Bachelor of Computer Science (Honours); GPA: **11.5/12** — *Sept. 2022 – Dec. 2026*

- Relevant Courses: Abstract Data Types and Algorithms, C Systems Programming, C++ and Java OOP, Database Management Systems, Web Development, Discrete Structures I/II, Operating Systems, Programming Paradigms
- Awards and Honours: Deans' Honor List 2022-2023 and 2023-2024, Academic Excellence Entrance Scholarship

Experience

Embedded Software Engineer Intern — Sept 2025 – Present

Ciena — *Ottawa, ON*

- Implement and maintain the **initial boot and startup sequence** for the **Reconfigurable Line System (RLS)**, including low-level hardware initialization, kernel module loading, and embedded service bring-up
- Debug and optimize embedded components in **C/C++**, resolving **resource leaks** and leveraging the **Yocto Project** to tailor Linux builds for networking platforms
- Design internal **Python** automation tools to accelerate debugging, testing, and system validation, improving developer efficiency

Systems Software Developer Intern — May 2025 – August 2025

Ford Motor Company — *Ottawa, ON*

- Designed and implemented embedded **C++** components for **Android-based** infotainment systems based on a **Linux** kernel platform, integrating with low-level drivers and using **Google Test (gtest)** for unit testing to ensure reliability and performance
- Developed and maintained automated system-level tests for infotainment features using **Python**, increasing reliability and reducing manual test effort across in-vehicle systems
- Validated Enhanced Connectivity Gateway and Telematics Control Unit to ensure stable data exchange within the infotainment platform, using **TestRail** for test management, **PuTTY** for hardware verification, and **Git/GitHub** for version control

Teaching Assistant — Jan 2025 – April 2025

Carleton University — *Ottawa, ON*

- Assisted in **Java Object-Oriented Programming (OOP)** class, supporting student learning through strong knowledge of **Java** and core programming concepts
- Conducted tutorials and office hours, clarifying key **OOP** topics like **abstract classes** and **polymorphism**
- Supported students on the class discussion board by debugging **Java** code, explaining programming concepts, and offering guidance on object-oriented design principles

Software Developer Intern — Sept 2024 – Dec 2024

Ford Motor Company — *Ottawa, ON*

- Automated **40+** functional tests for in-vehicle infotainment and network systems using **Python** and the **Slash** framework, boosting efficiency and increasing testing coverage by **70%**
- Managed in-vehicle infotainment system setup and test environment configuration on a **Linux operating system (Ubuntu)**, ensuring accurate connections and PC settings for outcome verification by the Stability Monitor team
- Conducted manual and automated tests to track system failures; applied **C/C++** expertise to debug issues and raised **JIRA** tickets for developers to resolve system-related problems

Projects

t:slim Insulin Pump | C++, QT, Qt Creator, Ubuntu VM — April 2025

- Built a real-time **Qt-based** GUI to simulate insulin delivery, including modular components for bolus, CGM, and safety controls
- Implemented **Observer** and **Mediator** design patterns using **Qt signals/slots** to coordinate logic and UI interactions
- Developed extensible, testable code following **object-oriented principles**, enabling reusable modules across **5+** classes

Movie Locator | Node.js, Express.js, JavaScript, HTML, CSS, Handlebars.js, SQLite — April 2024

- Developed a dynamic movie website with user authentication, enabling users to explore films, create accounts, and manage favorite selections using **SQLite3**
- Designed an intuitive frontend with **HTML**, **CSS**, and **Handlebar.js** to ensure seamless navigation and an aesthetic layout

Multi-thread Ghost Simulator | C, Ubuntu VM, Linux Terminal — Dec 2023

- Collaborated on a ghost-hunting simulator using multithreading to enhance performance and responsiveness in a **Linux environment**
- Utilized dynamic data structures and **Valgrind** to optimize memory usage and resolve potential leaks
- Enhanced code modularity with **30+** functions, implemented ghost action logs and unit tests, and streamlined the build process with **Makefiles** for efficient troubleshooting

Skills

Languages/Tools: Java, C/C++, Python, SQL, JavaScript, HTML/CSS, JSON, MongoDB, Scheme, Bash
Frameworks: Node.js, JavaFX, Flask, PowerShell, Python Slash, Jenkins, PostgreSQL, Qt, React, Google Test
Developer Tools: Git, VS Code, Testrail, Jira, PyCharm, IntelliJ, Racket, Linux/Unix (Ubuntu), PuTTY, Valgrind
Soft Skills: Adaptability, Leadership, Time management, Teamwork, Communication