

Arhaan Wazid

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

EDUCATION

Bachelor of Computer Science (Honours) | *Carleton University*; GPA: **11.5/12** Sept. 2022 – April. 2027

- Relevant Courses: Abstract Data Structures and Analysis of Algorithms, C Systems Programming, C++ and Java Object Oriented Programming, Database Management Systems, Web Development, Operating Systems, Programming Paradigms
- Awards and Honours: Deans' Honor List 2022-23, 2023-24, 2024-25, and Academic Excellence Entrance Scholarship

EXPERIENCE

Embedded Software Engineer Intern | *Ciena* Sept. 2025 – Present

- Built an internal **CVE detection tool** in **Python** to automate vulnerability scanning across kernel versions deployed on networking hardware (e.g., **RLS 6500**), filtering and triaging CVEs per card variant to accelerate security review cycles
- Developed and continuously enhanced a **Lineup Tool** to parse and resolve **Yocto** recipe dependencies for repository management, collaborating cross-functionally with the **DevOps** team to ensure correct recipe and repo pulls across product lines
- Authored **Yocto** recipes (**.bbappend**, **.inc**) for product simulators using **BitBake**, configuring build layers and resolving dependency conflicts across multiple platform targets
- Served as **primary point of contact** for firmware updates, developing and refining **Bash** and **Python** scripts to streamline hardware flashing across embedded devices
- Debugged production **C/C++** code using **Coverity** static analysis, identifying and resolving memory leaks, resource hazards, and other code-quality defects in embedded Linux components

Systems Software Developer Intern | *Ford Motor Company* May 2025 – Aug. 2025

- 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 | *Carleton University* Sept. 2023 – Jan. 2024 | Jan. 2025 – Apr. 2025

- 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 | *Ford Motor Company* Sept. 2024 – Dec. 2024

- 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

Data Analyst Intern | *Shared Services Canada* May 2024 – Aug. 2024

- Conducted research and data analysis on emerging **AI technologies**, building **Power BI** dashboards to support the development of a business request AI system for small government agencies
- Developed **Rust** and **JSON** pipelines to extract, process, and clean **CSV** data, then vectorized the output for integration into AI and machine learning models

PROJECTS

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

- 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

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

- 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, Rust, SQL, JavaScript, HTML/CSS, JSON, Bash, MongoDB, Scheme

Frameworks: Node.js, JavaFX, Flask, PowerShell, Python Slash, Jenkins, PostgreSQL, Qt, React, Google Test

Developer Tools: Git, VS Code, Testrail, Jira, PyCharm, IntelliJ, Linux/Unix (Ubuntu), PuTTY, Valgrind, BitBake, Coverity, Antigraity

Soft Skills: Adaptability, Leadership, Time management, Teamwork, Communication