Muhafud A. Farah

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EDUCATION

Carleton University   **Ottawa, Ontario**

B.S. in Computer Science   *Expected May 2026*

Related Coursework: Data Structures & Algorithms, Object-Oriented Programming, Web Development, System Programming.

Career Objective

Passionate and hardware-curious Computer Science student with strong experience in **Python, C, and systems-level debugging**, seeking a **Fall 2025 Co-op position** on Ciena's THW Client team. Eager to grow in ASIC design and verification through hands-on development, scripting, and prototyping in collaborative, high-impact projects.

SKILLS

- **Languages:** C, Python, Java, JavaScript, (learning SystemVerilog)
- **Hardware Knowledge:** FSMs, HDL fundamentals, Digital Systems, ASIC/FPGA concepts
- **Tools:** Git, Jenkins (intro), VS Code, Linux/Ubuntu, Shell scripting
- **Concepts:** OOP, Concurrency, Simulation Testing, Debugging
- **Soft Skills:** Clear Communication, Independent Learning, Team Collaboration

EXPERIENCE

cuHacking — *Developer & Hackathon* Organizer   *Aug 2023 – Present*

- Led backend feature development using Node.js and MongoDB; collaborated closely with infrastructure and design teams.
- Managed secure API integration and deployment pipelines in a Linux environment.
- Facilitated technical meetings, contributing ideas and problem-solving strategies with peers.

Aerotek (Honeywell Intelligrated) — *Quality Technician*   *Jun 2021 – Feb 2022*

- Developed Python and shell scripts to automate diagnostics and improve test coverage.
- Conducted hardware diagnostics and firmware validation with engineers to ensure reliability.
- Assisted in integrating new test processes and documented QA procedures to streamline operations.

PROJECTS

VaultScan — *Python, AWS (S3, IAM, CloudWatch), SQLite, Boto3*

- CLI tool to identify sensitive data patterns in cloud storage using regex and IAM analysis.
- Built a modular CLI engine with logging and alerting pipelines integrated into SQLite.
- Tuned performance for large bucket scanning and simulated real audit environments.

Ghost Hunt Simulator — *C, Multithreading, Ubuntu VM*

- Simulated real-time interactions using multithreading and mutex logic, mimicking hardware-level behavior.
- Designed modular components to simulate CPU coordination, simulating a logic gate-style command system.

ACTIVITIES & LEADERSHIP

NSBE (National Society of Black Engineers) — Region I
Planning Committee Member

- Organized cross-campus events using structured workflows and budget tracking
- Produced collaborative docs for regional engagement and knowledge sharing