Daayim Asim

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4th Year Computer Engineering Student - Graduating April 2025 - Seeking 4/8 months internship

Education

- **Memorial University Of Newfoundland** — St. John's, NL
  Bachelor of Computer Engineering; Engi GPA: 3.5 — *May 2020 - June 2025*
  Courses: *Computer Architecture, Data Structures, Mobile Software Development, Computer Networking, Software Dev. Practices*

Skills Summary

- Languages: Python, C, C++, SQL, C#, Java, JavaScript, HTML & CSS
- Frameworks: Pytorch, WAMP, Unity, JavaFX, FastAPI, Django, Flask, ReactJS, NanoPB
- Tools: Porotbufs, GIT/GitHub, MySQL, Gitlab CI/CD, Jira, Qt, GNU Radio, WAMP Server
- Platforms: Web, Code Composer, Visual Studio, Eclipse IDE, MacOS, RaspberryPi OS, Ubuntu, Embedded Linux

Experience

- **Software Engineer Intern** — St. John's, NL, Canada
  C-CORE Inc. — *May 2023 - August 2023*
  - Developed ground station user interface for Killick-1 CubeSat project (Python Flask, FastAPI, Grafana)
  - Solely developed database for satellite telemetry collection as time series database (InfluxDB) with satellite configuration caching (RedisDB)
  - Created software defined radio communications protocols between ground station and satellite using Protobuf messages (NanoPB, GNU Radio, FreeRTOS, C programming)
  - Created CI/CD pipelines for basic linting and unit testing (Gitlab CI/CD)
  - Developed file system storage for the CubeSat satellite's MCU, leveraging data structures like ring buffers and queues, employing FRAM and onboard flash memory to ensure efficient telemetry data storage and retrieval (C, Protobufs)
- **Embedded Software Engineering Intern** — St. John's, NL, Canada
  eSonar Inc. — *September 2022 - December 2023*
  - Developed firmware using wifi and Zigbee protocols for subsea embedded applications (C++, Visual Studio, Microchip Advance software Framework 4.0)
  - Programmed machine learning interfacing with collected frequency data on Google Coral (Python, Pytorch)
  - Configured embedded linux kernel via the Yocto Project (Embedded Linux)
  - Developed graphical user interfaces for testing and interfacing with wireless and embedded software applications (JavaFX)
  - Tested and designed PCBs for wireless communication device (AutoDesk Eagle)
- **Control Systems Engineering Intern** — St. John's, NL, Canada
  Cenovus Energy Inc. — *December 2022 - May 2022*
  - Provided research proposal of alternative ICSS Software infrastructure implementations for Pipe-line simulation testing in Offshore Oil and Gas facilities
  - Created database application to improve management of client shipments using WAMP Stack (mySQL, PhpMyAdmin, C#, Visual Studio, .NET WinForms)
  - Designed new circuit wiring diagrams via AutoCad software for Offshore ICCS power cabinets (OrCAD)

Projects

- Developed 2D maze exploration / dungeon crawler game with multiple levels, in-game audio, score tracking, character animations, and combat mechanics (C#, Unity Framework, GitHub)
- Developed water management firmware (C++, Visual Studio, Microchip Advance software Framework 3.0) and interactive display GUI (Qt) using Atmel SAML21 micro-controller development board
- Created personal website using fundamental web development technologies (HTML, CSS, JavaScript, Bootstrap)

Honors and Awards

- Amazon Robotics Hackathon (2023): Developed path planning algorithm for robots in Fulfillment Center (2nd Place)
- Memorial University of Newfoundland Endowment Fund Scholarship [$2550.00] (2020)
- Bronze Medal in Eastern Newfoundland Science and Technology Fair (2019)
- Received the Professional Institute of the Public Service of Canada Science Award: Best in Science that Contributes to the Quality of Life for Canadians (2019)

Volunteer Experience

- **United Nations Children Emergency Fund**
  Local Club Event Organizer and Treasurer — *Oct 2018 - Sep 2020*
  - Raised approximately $1000 in funds during 2019
  - Managed, accounted, and tracked charitable donations using Microsoft Excel
  - Used HTM/CSS to create web page for local fundraising
  - Planned and implemented club fundraiser events and programs