Jeremy Mark Tubongbanua

EDUCATION

Ontario Tech University

Sep. 2021 – Apr. 2025

Bachelor of Engineering, Software Engineering (Honours)

Oshawa, ON

- 3.92 cGPA (4.3 Scale)
- Relevant Coursework: Systems Programming, Computer Networks, Introduction to Artificial Intelligence, Operating Systems, Software Quality, Computer Security, Embedded Systems, Machine Learning and Data Mining

EXPERIENCE

Software Engineer

Aug. 2022 – Present

At sign

San Francisco Bay Area, CA

- Led development of C SDK, enabling secure **TCP/IP** sockets for embedded systems to communicate securely over the network eliminating all networking attack surfaces, written in **C**, **CMake** and **MbedTLS**
- Developed NoPorts C Daemon software, enabling common networking remote access protocols (like SSH/RDP) without the need to open any external ports on Linux system, written in $\bf C$ and $\bf CMake$
- Represented Atsign at CES 2024, collaborating with engineers from the The Qt Company on a Python Raspberry Pi IoT demo, showcasing secure networking between Linux devices to 138,000+ conference attenders
- Developed regression tests and tooling for NoPorts product, simulating full end-to-end remote access between Linux containers using **Docker** and **UNIX Shell Scripting**
- Implemented CI/CD pipelines for core Java libraries automating regression tests and release to Sonatype Nexus Repository using Maven and GitHub Actions

Software Engineer Intern

Jun. 2022 – Jul. 2022

At sign

San Francisco Bay Area, CA

- Developed Challenge-Response Authentication Mechanism (CRAM) and Create, Read, Update, and Delete (CRUD) operations in **Java** leveraging object-oriented principles and **Maven**
- Rebuilt developer documentation site with HTML/CSS/JS, establishing a standardized framework for technical writers to add and maintain developer documentation

LEADERSHIP EXPERIENCE

Robotics Judge Advisor & Mentor

Nov. 2021 - Present

Scarborough, ON

FIRST Robotics Team 5596

- Volunteer as the Judge Advisor for local annual lego robotics competition events with over 1,500 attendees, coordinating 25+ adult judge volunteers and enforcing adherence to the official judging rules during team evaluations
- Programming mentor for Mary Ward FISRT Robotics Competition high school team, teaching Java and Robot programming and inspiring youth in STEM

AWARDS

1st Place Overall

Apr. 2025

Electrical, Computer, and Software Engineering Capstone Exhibition

Ontario Tech University

- Awarded 1st place out of 32 capstone project groups within the Electrical, Computer, and Software Engineering cohort of 2025 as the most technical, innovative and robust capstone project engineered over an 8 month duration
- Developed an indoor navigation system for the visually impaired with fully custom 3D-printed headset and smart cane attachment using **PyTorch** for object detection and classification and **AWS** for sign transcribing

3rd Place in Programming

Jan. 2025

Ontario Engineering Competition 2025

McMaster University

- Awarded 3rd place in the province, representing Ontario Tech University competing against 13 engineering universities
- Developed disaster management application involving front-end/back-end integration and robust distributed systems solution using **Docker**, **Python Flask**, **React**, and **Tailwind CSS**

1st Place Overall

Oct. 2024

NASA Space Apps Hackathon 2024

 $Ontario\ Tech\ University$

- Awarded 1st place out of 12 teams and selected as global nominee to represent Ontario Tech on global stage
- Built a full-stack web application converting NASA Earthview data into 3D-printable STL meshes enabling qualitative inspection for Canadian Space Agency mission scientists, using React, Tailwind CSS, Python Flask, and Linux