

Jeremy Mark Tubongbanua

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EDUCATION

University of Ontario Institute of Technology

Ontario, Canada

Bachelor of Engineering, Software Engineering

Sep. 2021 – Apr. 2025

- 3.93 cGPA (4.3 Scale)
- Herman Kassinger Award (1 of 12 award winners and 3.0+ GPA)
- President's Honours List (3.8+ GPA)

WORK EXPERIENCE

Software Engineer

June 2021 – Present

Atsign

San Jose, CA (Remote)

- Represented at Atsign at CES 2024 Las Vegas tech as a sales engineer involved closely in the development of joint partnership secure plant demo with The Qt Company, involving a smart IoT plant that can securely be controlled with no networking attack surface using NoPorts
- Designed and developed physical and software aspects of automated beer demo for Embedded World 2024 conference in Nuremberg, Germany joint partnership with the Qt Company
- Wrote core AES-256 and RSA-2048 cryptographic implementations, end-to-end encryption, and SSL implementations of the atProtocol in C99 using MbedTLS, Espressif-IDF (ESP32) and CMake
- Designed and developed automated end-to-end regression tests which involved establishing an SSH connection between two Docker containers with no open inbound network ports
- Assisted in annual summer internships involved in tasks like recruiting, interviewing, and intern mentorship

Vice President of Communications

Apr. 2023 – Apr. 2024

Ontario Tech University

Oshawa, ON

- Conduct tasks involving internal/external communications and sponsorship hunting
- Assisted in planning and organizing of computer science career building workshops and events

VOLUNTEER EXPERIENCE

FIRST Robotics Judge Advisor

Jun. 2020 – Present

Mary Ward Catholic Secondary School

Toronto, ON

- Volunteered as the Judge Advisor for the 2023 and 2024 FLL Judge Advisor for Mary Ward Qualifier facilitating 15 judge volunteers
- Volunteered as a Provincials Championship Judge for the 2023 and 2024 FIRST FLL West and East Provincial Championships judging elementary school lego robotics

Cpp North Volunteer

Jul. 2023

CppNorth

Toronto, ON

- Presented my own lightning talk on my experiences on carpal tunnel syndrome as a programmer with 50+ live attendees
- Volunteered in set up, tear down, and as a camera man and time keeper for the full duration of the conference

PROJECTS

Qt/Atsign Partnership Plant Demo | *Python, Atsign, Qt (Python), Fusion360, Linux*

June 2020 – Present

- Project was chosen to be displayed at CES 2024 in Las Vegas as a demo at the Qt Company's booth
- A smart IoT plant with 4 sensors and 1 actuator that can be remotely controlled securely using Atsign technology and Qt's rich user interface
- Smart IoT plant consisted of a Raspberry Pi, a submersible DC water pump, and four sensors; temperature, humidity, water level, and soil moisture
- Touch screen consisted of a Raspberry Pi running Qt QML in Python offering a rich user experience to interact with the plant

Timber | *Spigot API, Java, Maven*

Apr. 2019

- Developed a Minecraft plugin allowing trees that server owners can download and use in their own multiplayer servers using Spigot as a JAR dependency
- 2.5k+ downloads and peak of 15 concurrent servers using the plugin at once