Jeremy Mark Tubongbanua

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WORK EXPERIENCE

Engineer
Atsign

May. 2025 – Present
San Francisco Bay Area, CA (Remote)

- Lead project owner of **C** SDK, enabling secure **TCP/IP** sockets for Linux and embedded systems to network securely over the Internet, written in **C**, **CMake** and **Espressif-IDF**
- Architected and develop **Flutter**-based policy management application, enabling clients to administer remote access rules of critical infrastructure
- Lead internship acquisitioner and coordinator, organizing the onboarding processes while serving as primary mentor, overseeing recruitment, and personal development of software engineering interns
- Enhanced automated regression tests of flagship product by parallelizing and **Dockerizing** processes reducing testing time by half, while also enabling scalability and extensibility

Software Engineer (Consultant)
Atsign

Aug. 2022 – Apr. 2025
San Francisco Bay Area, CA (Remote)

- Developed **C** Daemon process software, enabling customers to create **TCP/IP** tunnels into **embedded linux devices** without exposing external ports, while maintaining functionality of their original application layer tools, like **SSH**
- Represented Atsign at **CES 2024** in Las Vegas, working directly with **Qt Company** engineers to demo secure **Python**-based IoT communication between **Linux** devices for conference attendees
- Built regression testing framework for NoPorts product, simulating full remote access scenarios between containerized Linux environments using **Docker** and **Bash** scripting without the need for opening external interfaces
- Set up **CI/CD** automation for core **Java** libraries with **Maven** and **GitHub Actions**, handling test execution and automated publishing to Sonatype Nexus

Software Engineer (Intern)
Atsign

Jun. 2022 – Jul. 2022
San Francisco Bay Area, CA (Remote)

- 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 Coach and Judge Advisor
FIRST Robotics Competition (Team 5596)

Nov. 2021 – Present
Scarborough, ON

- Volunteer as the lead 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
- Lead software mentor for competitive FIRST Robotics team, inspiring youth to pursue careers in computer vision, computer science, and embedded systems by leading workshops and overseeing the development of robotics software

EDUCATION

Ontario Tech University
Bachelor of Engineering, Software Engineering (Honours)

Sep. 2021 – Apr. 2025
Oshawa, ON

- 3.94 cGPA (4.3 Scale)
- Relevant Coursework: Computer Networks, Operating Systems, Computer Security, Embedded Systems
- **1st Place** Capstone Project: Design and Development of Blind Person Assistant. Secured 1st place among 32 competing projects (over 8 months) by creating a headset and white cane attachment for the visually impaired that enhances awareness of their surroundings using **Raspberry Pis**, a **Luxonis Oak-D Lite Smart Camera** and custom-designed **3D printed** parts, coded in **Python**
- **3rd Place** Programming at Provincial Ontario Engineering Competition (OEC)
- **1st Place** NASA Space Apps Hackathon 2024: Developed SWOT Satellite Data 3D Analysis Web Application written in **Python** and **React**, enabling scientists to generate 3D printable models of satellite data for analysis

TECHNICAL SKILLS

Programming Languages: C, C++, C#, SQL, Java, Python, Bash
Frameworks & Libraries: React, PyTorch, Maven, CMake, MbedTLS, Espressif IoT Development Framework
Developer Tools: Git, GitHub Actions, Docker, Linux, CI/CD, Valgrind