Tharny Elilvannan

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Profile

- Enrolled in McMaster University's Software Engineering Co-op program, eligible for a 4–16 month co-op Spring 2026
- Solid foundation in Software Engineering: Completed advanced coursework in software design, testing, and engineering practices.
- Building StreamBELUGA, a web app designed to stream an ROV's camera feed using **React** and **Tailwind CSS**
- Versatile in programming and tools: skilled in **Python, Java,** and **C/C++**; experience with **React** and **Git**.
- Career interests include full-stack web development, robotics, embedded programming, DevOps, and machine learning

Education

Bachelor of Engineering Co-op (BEng) | Software Engineering **Sept 2023 – Apr 2027**

McMaster University, Hamilton ON, (GPA 10.1/12)

- Related Courses: Software Design (I and II), Software Engineering Practice and Experience, Software Requirements and Security Considerations, Databases, Data Structures and Algorithms.

Experience

Programming Co-Lead **May 2025 – Present**

McMaster Engineering Competition

- Host a programming competition for 100+ competitors by writing a problem statement, ensuring clear communication, answering competitor questions, and coordinating with judges to determine a winner
- Prepare competition materials, including a briefing presentation, competition package, rubric, and welcome message using **G Suite**

McMaster Certified Tutor **Oct 2024 – Present**

McMaster University

- Tutor 15+ students in Introductory Microeconomics, Calculus I, Physics I, Physics II, basic coding in Python, and object-oriented programming in Java

Software Team Member **Aug 2024 – Present**

McMaster Deep-space Analogue Research Expedition

- Assist in the development of BELUGA, an ROV designed for underwater exploration
- Develop a web app, StreamBELUGA, designed to stream the ROV's camera feed, as well as control the movements of the ROV, using **React, Tailwind CSS**, and **Git/GitHub**

Projects

Rescue Mission Simulation **Feb - Mar 2025**

Java, Maven, JUnit, Git

- Simulated performing rescue missions with a drone to remote islands by finding an emergency site and the nearest creek, achieving an estimated 85% accuracy
- Collaborated in a team of three to create class diagrams to accurately plan project structure
- Utilized **JUnit** to automate testing, **GitHub Actions** to automate the build process

Altimeter **Oct 2024**

C++, Arduino, Git

- Used a BMP180, Arduino and LCD to create an altimeter that calculates altitude above sea level and temperature, achieving an estimated 80% accuracy
- Successfully linked electrical connections between the Arduino, BMP180, LCD and a potentiometer

Skills

Programming Languages: Python, C/C++, JavaScript/HTML/CSS, Java, Verilog
Libraries & Frameworks: Next.js, React, Tailwind CSS
Software Tools: Git/GitHub, Windows, MacOS, Linux/Unix, MS Office Suite, G Suite Applications