

Stefan Tuczynski

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TECHNICAL SKILLS

Languages: C++, Java, C, C#, Python, HTML, CSS, Javascript, Verilog, VHDL

Developer Tools: Vivado, Quartus Prime, Git, VS Code, Unity, React.js

Technical: Arduino, Raspberry Pi, STM32, ESP32, Linux

Certifications: Verilog for an FPGA Engineer with Xilinx Vivado Design Suite (Udemy)

EXPERIENCE

Firmware Developer

Jan 2024 – Present

Waterloop — University of Waterloo Hyperloop Team

Waterloo, ON

- Programmed an STM32 microcontroller using C to implement I2C communication between sensors
- Attended weekly meetings to discuss project updates and technology debriefings

Frontend Developer

Sept 2021 – Aug 2023

Crafting for a Cure

Thornhill, ON

- Developed website using Webflow and JavaScript
- Collaborated with the CEO of [Infinidiv](#) to discuss and implement changes made to the website
- Generated over **\$1000** in donations through front-page interface changes

Lead Designer

June 2021 – June 2023

Titans Robotics — FTC Team 19446

Markham, ON

- Developed **15+** physical robotic components using OnShape to support team robot
- Lead a team of **5+** members to plan and build the robot in under 2 months
- Taught **100+** students CAD and OnShape fundamentals through weekly workshops

PROJECTS

BloomBuddy | C++, Arduino, ESP32, HTML, CSS, Javascript

[Project Link](#)

- Winner at **MakeUofT 2024 - Canada's largest hardware hack-a-thon**
- Developed an IoT plant system that reacts to the environment
- Sensor data is communicated to a webpage via **UART protocol**
- Utilized **OpenAI API** to create a personalized ML model that the user can communicate with

FinTopia | C#, Unity, Meta Quest VR

[Project Link](#)

- Winner at **Velocity Innovation Challenge: Imagining the Future of Finance**
- Created a user-friendly VR application that encourages financial literacy training
- Developed C# scripts in Unity that kept track of user data and handled internal logic

Wave | React Native, React.js, Typescript, Google Cloud APIs, XCode

[Project Link](#)

- Developed an iOS app helps seniors connect with each other in an interactive way
- Integrated **Google Cloud Translation API** to translate user input into **10+** languages
- Utilized the React Native Voice library to transform user voice into displayed text

PourPal | C++, STM32

[Project Link](#)

- Built a medicine dispenser that administers medicine with **95% accuracy**
- Programmed a 12V pump, ultrasonic sensor, and flow sensor to calculate flow rate

AnimeListApp | Java, JavaFX

[Project Link](#)

- Developed an application that processes **over 16000** dataset objects
- Implemented Merge Sort and Linear Search to sort and search entry points
- Generated dynamic graphs that adapt to user input using **object-oriented** principles

EDUCATION

University of Waterloo

Sept 2023 – Apr 2028

Candidate for Bachelor of Applied Science in Computer Engineering

Waterloo, ON