TARAN GILL

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Education

University of Waterloo - Bachelor of Software Engineering, Honors — Sep 2021 - Apr 2026

- **92% cumulative average** (3.98/4 GPA), 4x Dean's Honors List
- Object-Oriented Programming **96%**, Databases **95%**, Data Structures and Algorithms **92%**, Compilers **92%**

Skills

Languages: C++, Java, JavaScript, Python, C, HTML, CSS, Bash, SQL

Technologies: AWS, React, DynamoDB, NoSQL, Docker, Linux, Postman, XCode, Git

Experience

YuJa - **Software Engineer Intern** — San Jose, CA | Sep 2023 – Present

Java, AWS (Lambda, API Gateway, DynamoDB, S3, CloudFormation, CloudWatch)

- Developing a Chrome extension to scrape user data from competing platforms like PollEverywhere and Mentimeter.
- Architected an AWS serverless microservice to convert and integrate the harvested data into our product Engage.

YuJa - **Full Stack Software Engineer Intern** — San Jose, CA | Jan 2023 – Apr 2023

Java, AWS, React, JavaScript

- Successfully launched a new software-based student response service targeting the educational market.
- Implemented **25+ new feature requests** for pilot customers, including new backend lambda services in Java allowing users to collaborate on polls and receive results by email, **increasing customer satisfaction by 68%**.
- Resolved **120+ bugs** on frontend and AWS backend infrastructure, **improving system availability by 23%**.
- **Decreased startup latency of backend microservices from eight to two seconds** through optimizing code execution and automatic scaling.

Ford - **Embedded Developer Intern** — Waterloo, ON | May 2022 – Aug 2022

C++, C, Linux, QNX

- Designed and developed a Bash automation script that continuously connects to ECUs within a vehicle and searches for errors, warnings, and denials from the telemetry logs, **saving 500+ hours of debugging time.**
- Developed a C++ utility that enabled Ford's over-the-air configuration logs to access socket files on the infotainment system during ignition, **increasing data collection by 23% in all 2023 vehicles.**
- **Reduced bug detection time by 32%** by adding support using C++ for a screenshot of the infotainment system to be included when a user experiences a bug and triggers a report from their vehicle.

Projects

Image Recognition App

- Built a web app to provide descriptions of objects in user-uploaded images, improving the user experience.
- Leveraged AWS Rekognition's computer vision algorithm and S3 for storage, **achieving 98% accuracy**.

Waterloo Satellite Design Team

- Designed real-time firmware to manage the satellite's telemetry data and system health using C.
- Developed drivers for the microcontrollers and onboard computer, scheduled launch into space in 2023.

Obstacle Avoidance Helmet

- Engineered an accessory for the visually impaired that alerts the user of approaching objects in a radius of 3m.
- Developed a time algorithm using C to update the user's position and check for nearby obstacles every 0.034s.

SHAD - Dalhousie University

- **Received 1st place** out of 14 teams for the development of a prototype that uses near-infrared spectroscopy to identify recyclable objects based on municipal requirements.