

# BRYAN LIN

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## EDUCATION

### University of Waterloo

Waterloo, ON

*Bachelor of Engineering in Software Engineering, Co-op*

- Received \$2000 President's Scholarship, WatCloud Design Team

## TECHNICAL SKILLS

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

**Frameworks:** React, Node.js, Django, Express.js, Next.js, Flask, PostgreSQL, RAG Pipelines, MCP Servers

**Developer Tools:** Git, Google Cloud Platform, Docker, NeoVim, AWS, Firestore, Linux Shell, Nginx, Supabase, GraphQL

**Libraries:** Pandas, NumPy, Matplotlib, TensorFlow, Scikit-Learn

## EXPERIENCE

### Software Engineer Intern

Jun. 2025 – Sep. 2025

Montreal, QC

*Hims & Hers (formerly Livewell)*

- Enabled **20,000+** patients to independently interpret complex blood test results, reducing support inquiries by **26%** through a full-stack AI chatbot using **Flask, Docker, GCP, OpenAI , Next.js, and Firebase**
- Designed and implemented a blood test visualization dashboard using **React** and **Chart.js**, simplifying complex medical data
- Built an internal analytics dashboard for the chatbot, aggregating conversation metrics and patient usage trends to help clinicians monitor performance and guide iterative improvements.

### Software Engineer Intern

Feb. 2025 – Apr. 2025

Toronto, ON

*Scholarship W.*

- Increased scholarship accessibility by matching **15,000+** students to personalized opportunities through a hybrid **recommendation system** that combined **collaborative** and **content-based filtering**
- Improved matching accuracy by **17%** for over **1,100+** scholarships by iteratively tuning algorithms and validating against real student–scholarship data
- Reduced feature selection latency by **2000 ms** by engineering a scalable pipeline that joined scholarship metadata with student profile data using Django REST APIs and MySQL.

## PROJECTS

### Amazon Logistics Router | Python, Algorithms, Network Optimization

 [GitHub](#)

- **Amazon Robotics Hackathon Winner** — Developed a congestion-adaptive, bandwidth-aware routing algorithm for efficient package delivery
- Optimized delivery routes using advanced **Dijkstra's algorithm** and **BFS**, improving efficiency in large-scale fulfillment networks
- Collaborated with a team of 3 to outperform baseline logistics solutions across all competition tiers

### BryteLinker | C language

 [GitHub](#)

- Building **Bryte Linker**, an interpreted programming language featuring a custom bytecode virtual machine in C
- Implementing a full **lexer, parser, and bytecode compiler** to translate high-level code into executable bytecode
- Designing an efficient **stack-based VM** to optimize instruction dispatch, memory use, and runtime performance

### League of Studies | Typescript, Supabase, React, Next.js, Docker

 [GitHub](#) | [Demo](#)

- Won **1st Place in the MLH GoDaddy Challenge at JACHacks**, outperforming **100+** participants
- Engineered a multiplayer studying web application using Next.js, featuring death-match and cooperation modes
- Integrated **Gemini 2.5 Flash** for custom question generation from text/PDF to populate content automatically
- Managed user identity and data persistence by integrating **Supabase** authentication and a **PostgreSQL database**

### Breast Cancer Tumour Classifier | Python, TensorFlow, NumPy

 [GitHub](#)

- Trained and tested multiple Supervised Learning Models, such as Support Vector Machines, Logistic Regression Models and **Neural Networks by scratch** using only NumPy to classify breast growths as benign or malignant
- Developed a MySQL architecture to persist and manage neural network training data, weights, and biases, ensuring scalable access for real-time model retraining and deployment.
- Achieved obtaining an over **95%** precision score and an **90%** recall score by training the Support Vector Machine