

BRYAN LIN

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EDUCATION

University of Waterloo

Bachelor of Engineering in Software Engineering, Co-op

Waterloo, On

Sep. 2025 – May 2030

- Received the President's Scholarship worth \$2000

EXPERIENCE

Software Engineer Intern

Jun. 2025 – Sep. 2025

Livewell

Montreal, QC

- Enabled **12,000+** patients to understand blood test results by developing a full-stack AI chatbot using **Flask, Docker, GCP, OpenAI , Next.js, and Firebase**
- Increased user retention **22%** by creating a blood test visualization dashboard using **React and Chart.js**, simplifying complex medical data
- Accelerated product delivery by **collaborating** in a small cross-functional team and implementing **CI/CD pipelines** with **Git**, resulting in faster iteration cycles and smoother integration

Full-stack Developer Intern

Feb. 2025 – Apr. 2025

Scholarship W.

Toronto, On

- 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
- Enhanced scalability and efficiency by developing a robust data preprocessing and feature selection pipeline with **Django REST APIs, SQL** integration, and optimized backend logic

PROJECTS

Amazon Logistics Router | Python, Algorithms, Network Optimization

September 2025

- **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

July 2025 - Present

- 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 (*Try It Out*) | Typescript, Supabase, React, Next.js, Docker

April 2025

- Collaborated in a team of 4 to build a **gamified study platform** with multiplayer matches and live leaderboards
- Handled full-stack implementation with **Next.js, TailwindCSS**, and Supabase in under 24 hours
- **JACHacks 2025 Hackathon Winner** – Recognized for innovative use of domain and seamless user experience under time constraints

Breast Cancer Tumour Classifier | Python, TensorFlow, NumPy

December 2024 – February 2025

- 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
- Designed and built a MySQL architecture to efficiently store neural network training data, weights, biases, and architecture information, creating a persistent and scalable machine learning system
- Achieved obtaining an over **95%precision score** and an **90% recall score** by training the Support Vector Machine

TECHNICAL SKILLS

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

Frameworks: React, Node.js, Django, Express.js, Next.js, Firestore, Flask

Developer Tools: Git, Google Cloud Platform, Docker, NeoVim, AWS

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