SEAN YANG

Software Engineering Intern (May-August 2026) / UWaterloo SE 2030 / C++, Java, ML, Full-Stack

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EDUCATION

University of Waterloo

Candidate for Bachelor of Software Engineering — **Cumulative GPA: 4.0/4.0** Expected May 2030
- **Activities**: Watonomous Robotics Engineer, Quizbowl Team

PROJECTS

Wundernn Market State Prediction

Wunderlab ML Challenge October 2025 – December 2025
- Built a custom **Transformer-based time series model** for market state prediction across 32 features
- Achieved **0.396 mean R^2** through architectural tuning and training optimization
- Implemented custom positional encoding and trained models locally on GPU, placing in the **top 5%** of **2500+** participants

Bucket

Personal Project November 2025 – Present
- Built and deployed a **full-stack student dashboard** using React, Next.js, GraphQL (Hasura), and PostgreSQL
- Designed backend data models and **GraphQL APIs** to support course management, grade tracking, and real-time queries
- Implemented **Google OAuth** authentication and **Dockerized microservices** for local development and deployment
- Launched and operated the platform for real users, reaching **40+** monthly active users with **493+** created resources

aicheye's Combat Tagging

Personal Project March 2025 – Present
- Developed and maintained a **Java-based Minecraft mod** enhancing combat mechanics
- Applied OOP design and event-driven architecture for stable performance on low-resource servers
- Reached **700+ downloads** through iterative feature development and community feedback

seanyang.me

Personal Project February 2025 – Present
- Designed and deployed a personal portfolio using React, Next.js, and Tailwind CSS
- Built a Flask backend for dynamic content and rate limiting, serving **3k+ requests/month**
- Achieved a **100/100 Lighthouse accessibility score** and **1k+ monthly visitors**

LEADERSHIP AND ACTIVITIES

WATonomous **Waterloo, Ontario**

Robotics Software Engineer September 2025 – Present
- Developed concurrent robotics software in **C++** using **ROS 2** for autonomous vehicle systems
- Built and evaluated predictive models for external agent behavior to improve safety decisions
- Maintained **Docker-based development environments** to support reproducible testing and deployment

AYJ Coding Club **North York, Ontario**

Senior Lecturer & Problem Setter June 2024 – June 2025
- Led bi-weekly lectures on algorithms and data structures for competitive programming to **50+ high school students**
- Authored original problems and automated **C++ graders** with **250+ total submissions** from students on the club's online judge

HONORS AND AWARDS

Certificates of Distinction in the Euclid, CSMC, & CCC (Sr. Div.) Contests **North York, Ontario**

Issued by *University of Waterloo Centre for Education in Mathematics and Computing (CEMC)* June 2025

Computer Science & Chemistry Excellence Awards **North York, Ontario**

Issued by *A.Y. Jackson Secondary School* June 2025

SKILLS

- **Programming Languages**: C++, Python, Java, Javascript
- **Frameworks & Technologies**: Git, Linux, React, Next.js, Docker, Tailwind CSS, GraphQL, PostgreSQL, Flask
- **Machine Learning**: PyTorch, Time Series Modelling, Model Evaluation & Tuning