

# LANCE YAN

Waterloo, Ontario, Canada

📞 (604) 726-2066 ✉ lance.yan@uwaterloo.ca 🌐 lanceyan.tech 🌐 LinkedIn 🌐 GitHub

## Education

### University of Waterloo

Bachelor of Computer Science (Hons.), Co-op

April 2030 (Expected)

Waterloo, ON

## Technical Skills

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

**Frameworks:** React, Next.js, Express.js, Tailwind, TensorFlow, pandas, NumPy, Matplotlib

**Tools:** Git, PostgreSQL, Supabase, Vercel, AWS, Docker

## Experience

### Software Engineering Intern (Founding Team)

May 2025 – Present

Stealth Startup – AI Legal Document Parsing

Toronto, ON

- Architected a state management and workflow system in **React** & **Next.js**, handling multi-step document processes and enabling seamless coordination between internal tools, improving frontend reliability and accelerating testing cycles.
- Designed and implemented a scalable **React** component library of **40+ reusable** UI elements, establishing a consistent frontend architecture that accelerated feature development, reducing projected development time by an estimated **60%**.
- Built dynamic, context-aware form validation workflows using **OpenAI API** to provide instant AI feedback on document completion accuracy, significantly improving user efficiency and reducing manual review time.

### Software Engineering Intern

January 2025 – April 2025

RCL Consulting

Vancouver, BC

- Built a consulting firm's website with **Next.js**, **TypeScript**, and **Tailwind**, crafting layouts and interactive features, optimizing SEO and accessibility to increase client engagement, and drove over **1,000+** new monthly visitors.
- Automated deployment pipelines with **Vercel CI/CD**, cutting release cycles by **3h** while maintaining **99.9%** uptime.
- Integrated **Google Analytics** and **CRM workflows** to automatically track website visitor behavior and lead interactions, giving consultants real-time insights into lead sources and increasing sales-qualified leads by **30%**.

### Software Developer (CS Dept.)

September 2023 – December 2024

Moscrop Secondary

Burnaby, BC

- Automated repetitive teacher workflows, including project folder setup and submission tracking, using **Node.js** and **Google Drive API**, saving staff **3+ hours** per week and reducing missing file issues by **90%**.
- Created a booking interface for lab hardware and shared resources with **React**, **Express.js**, and **Google Sheets API**, replacing a slow manual process and eliminating all double-bookings for the robotics kits and specialized equipment.
- Built a private “cheat sheet” dashboard for students using **JavaScript**, **HTML/CSS**, and **Node.js**, consolidating syntax tips, algorithms, and CS Dept. coding guidelines, reducing repetitive student questions by around **20%**.

### Research Fellow

June 2024 – July 2024

Toronto Metropolitan University

Toronto, ON

- Collaborated with professional engineers and **professors** from **Yale**, **UofT**, and **TMU** to jointly develop an AC-powered turbine, co-designing the system architecture and coordinating multiple prototype iterations, and presented the final working prototype to a panel of 5 industry-leading experts, earning praise for its technical innovation.
- Developed **MATLAB** and **Python** simulations to model airflow energy capture, enabling the team to rapidly test and iterate turbine prototypes and providing insights that directly informed the final hardware design.
- Led a **9-member interdisciplinary team** in executing simulation and prototype workflows, delegating modeling and technical tasks, and coordinating efforts across members to ensure timely completion of all project objectives.

## Projects

### AI-Powered Period Tracker 🌐 | React, Next.js, Supabase, Gemini API, TypeScript

June 2025

- Built a full-stack menstrual health tracker using **React** and **Supabase**, implementing secure authentication and highly optimized **Postgres** queries, enabling reliable retrieval of sensitive user data for accurate, personalized health tracking.
- Integrated the **Gemini API** to develop a conversational chatbot that delivers cycle predictions and personalized health insights, leveraging context-aware reasoning and adaptive dialogue flows to improve usability and user engagement.

### Chess Neural Network 🌐 | TensorFlow, Python, pandas, NumPy, Matplotlib

May 2025

- Built a deep learning chess engine with **TensorFlow**, training on **20M+** board states and achieving an Elo of **1400**.
- Optimized inference speed by batching evaluations and pruning low-probability moves, improving computational efficiency for real-time gameplay and reducing average decision time by **42%** while maintaining consistent move quality.