

Lei Wu

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Education

Carleton University

Ottawa, ON

BCS in Computer Science AI/ML, Minor in Statistics — 3.97 GPA

Sept 2022 - Apr 2027

- **Courses:** Data Structures and Algorithms, Database Management Systems, Operating Systems, Object Oriented Programming, HCI

Skills

Programming

Ruby, TypeScript, Python, Java, C++, SQL, R

Frameworks & Libraries

Rails, React, Next, Express, Node, Vite, pandas, NumPy, PyTorch, Flask, FastAPI, Selenium, Spring

Tools & Platforms

GraphQL, PostgreSQL, MySQL, MongoDB, AWS, GCP, Docker, Kubernetes, Buildkite, Prometheus, Git, Figma

Experience

Shopify

Toronto, ON

Software Engineering Intern

May 2025 - Current

- Improved **p50 import times by 32%** on large-payload CSVs by migrating legacy product create/update services to the product set service, scaling **500M+ daily GraphQL mutations**, and optimizing backend performance through flag rollouts, log monitoring, issue tracking, and bug fixes
- Reduced CSV product delete time by **92% (60s → 5s)** on products with large media files, improving merchant experience by optimizing **Ruby on Rails** backend pipelines through batch processing and elimination of N+1 query issues
- Saved an estimated **1000+** engineering hours through the development of **automation** scripts in **Python** to streamline manual tophatting
- Optimized backend service architecture for **SQL pipelines**, reducing queries by **22%** and error rate by **16%**, improving data reliability at scale
- Conducted interviews with **10+** merchants, identifying **3** high-impact improvements to AI-driven personalization and reduce errors in CSVs

CIBC

Toronto, ON

Project Management Intern

Sept 2024 - April 2025

- Reconciled over **\$1M** in project financials weekly, identifying discrepancies to ensure budget compliance and maintain reporting accuracy
- Led weekly governance meetings to synthesize updates from project managers delivering actionable insights to executive leadership
- Utilized **JIRA** and **Confluence** to track tasks and document project-related artifacts improving collaboration and project transparency

Canadian Border Service Agency

Ottawa, ON

Data Analyst Intern

May 2024 - Aug 2024

- Processed **100M+ records daily** from enterprise data warehouses, enabling **real-time pipelines** and analytics dashboards for federal operations
- Implemented automated SQL workflows for real-time enterprise data access, improving reliability and decision-making support
- Transformed raw SQL data into interactive **Power BI** dashboards, enabling clearer client insights through charts and pivot tables

Glimpse Social Inc.

Toronto, ON

UX/UI Designer

June 2022 - Apr 2024

- Designed flow, user interface, wireframes, and promotional content using **Adobe Creative Suite tools**, improving user engagement by 10%
- Created an advertisement for product utilization tailored to business interfaces using **Figma** distributed in over **100** businesses

Carleton University

Ottawa, ON

Web Development Teaching Assistant

Sept 2023 - Dec 2023

- Conducted in-person tutorials and office hours for **300+** students, improving academic performance through personalized support
- Applied extensive knowledge of **Node**, **Express**, **WebSockets**, and **JavaScript** to offer guidance in approaching assignments effectively

Projects

Neureset - Direct NeuroFeedback EEG Device Simulator 🔄

Apr 2024

- Developed a Neureset EEG simulator in C++ by applying Gang of Four **design patterns**, emphasizing **scalability** and full **SDLC** practices to ensure maintainable and robust system design
- Ensured **100%** of code was mapped to design specifications by documenting use cases, use case diagrams, sequence diagrams, state diagrams, UML class diagrams, and a traceability matrix, enabling easier maintenance and scalability for future development

Clean Vision - Computer Vision & Machine Learning to Sort Waste 🔄

Mar 2023

- Winner among 100+ teams at Hack the Hill **Maker Con Challenge**, successfully developing an app that sorts through waste
- Built Clean Vision, an AI-powered waste classification app, by leveraging **real-time**, **event-driven pipelines** with **WebSockets** and computer vision models (**OpenCV** and **Tensorflow**) in **Python** to mirror large-scale observability systems

Community & Leadership

Carleton University Blueprint

Ottawa, ON

VP Projects

Sept 2024 - Current

- Led a 5-person team to build a hospital wait-time optimization tool (FLOW) for GTA hospitals using **Mapbox** and **custom APIs**
- Scoped and led development of a user-friendly membership and payment platform (JOCA) using **React**, **Supabase**, and **Stripe**
- Established engineering best practices across the organization, including **CI/CD pipelines**, **linting**, and **standardized tech stack**