

Yang Li

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EDUCATION

Bachelor of Engineering in Co-op Software Engineering
McGill University, GPA: 4.0 / 4.0, Dean's Honor List

September 2024 – May 2028
Montreal, QC

EXPERIENCE

Software Engineering Intern
Botpress

September 2025 - Present
Montreal, QC

- Designed a fault-tolerant bot resource deletion algorithm to improve scalability and observability using **BullMQ**, **AWS EventBridge**, **Redis**, and **Grafana**, cutting failure rates by **95%** and ensuring fully recoverable operations for bots with over **1 000 000** messages.
- Optimized cost-efficiency and scalability of automatic file expiry scheduling with **Node.js**, **PostgreSQL**, and the **Prisma ORM**, reducing operational expenses by **30%** for an endpoint handling over **30 000** requests per day.
- Implemented an indexed file quota system with **Express.js REST APIs** integrated with the **Stripe API** and **Vitest** tests, enforcing plan-based limits that **reduced search latency by 30%** and prevented **20% storage overuse** across high-volume bots.
- Developed third-party integrations with over **1000** downloads using **Node.js** in **TypeScript** with **Webhooks**.

Co-Founder and Full-Stack Developer | [Link to website](#)
Cyber Engineering McGill

January 2025 - Present
Montreal, QC

- Developed a full-stack web application using **Next.js**, **React**, **TypeScript**, **Spring Boot (Java)**, and **MySQL**, streamlining club operations for **100+** members and **25+** customers.
- Delivered core registration and e-commerce features using **JWT**, **REST APIs**, and **Stripe API** alongside automated tests built using **Postman** and **Cypress**, contributing to a **50%** increase in club membership and revenue.
Deployed the product using **AWS Amplify**, **Elastic Beanstalk**, and **RDS** supported by a **CI/CD** pipeline made with **GitHub Actions** and **Docker**, achieving **99.9%** uptime and reducing release times by **30%**.

Software Developer
Game Dev McGill

September 2024 - Present
Montreal, QC

- Developed core gameplay mechanics using **Unity** and **C#**, including a physics-based grappling hook system and moving platforms with speed-matching behaviour, enhancing real-time player interaction.
- Collaborated with a cross-functional team in weekly standups to design, review, and test core gameplay systems using **Git** for version control and an **Agile**-inspired software development lifecycle.

PROJECTS

Wavify | Gesture-based presentation helper

March 2025

- Designed and built a **WPF** application using **.NET** and **XAML** backed by an ML-powered **Python** backend to facilitate contact-free navigation of Microsoft Office applications for users with limited mobility.
- Integrated data preprocessing using **NumPy** and real-time communication using **WebSockets** to enable responsive gesture-based controls via Microsoft APIs.

WebVulture | Automated SQL injection testing web platform

January 2025

- Built a full-stack web application fully automating **SQL** injection testing using **Python** libraries, combining **BeautifulSoup** for web scraping and **Selenium** for human-like interactions to bypass bot detection.
- Developed a responsive frontend with **React** and integrated a **FastAPI** backend using Server-Sent Events to deliver real-time testing feedback, enhancing user experience.

TECHNICAL SKILLS

Programming Languages | Java, Typescript, Python, C#, YML, C, HTML/CSS/JavaScript, Bash, SQL

Frameworks | React, Next.js, Spring Boot, Node.js, Express.js, FastAPI, WPF, .NET

Developer Tools | Git, Linux, MySQL, PostgreSQL, Postman, AWS, Docker, Redis, REST APIs, CI/CD, WebSockets