

Joey Yu

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EDUCATION

McGill University

*Bachelor of Arts in **Software Engineering** and **Statistics**.*

Montreal, QC, Canada

August 2022 – April 2025

PROGRAMMING SKILLS

Languages: Golang, Java, TypeScript, JavaScript, Rust, Python, C, C++, OCaml, Bash.

Technologies: Docker, Kubernetes, gRPC, GraphQL, Redis, Fauna, MongoDB, etcd, PostgreSQL, HAProxy, Git, AWS Lambda, Node.js, React, Next.js, SolidJS, TailwindCSS, NestJS, tRPC, FastAPI, Linux, GitHub Actions, GitLab CI/CD, Figma (Always happy to learn more!).

Interests: Full-stack Development, Cloud Computing, Microservices, Distributed Systems, and more!

PROFESSIONAL EXPERIENCE

Flojoy

April 2023 – Present

Software Development Engineer Intern - Full Stack Lead

- Flojoy is an open-source, drop-in replacement for engineering and ETL software such as LabVIEW, Simulink, RapidMiner, and Alteryx. <https://github.com/flojoy-io>.
- Leading a team of 6 interns on various projects, working on Flojoy's open source **Electron** desktop client and **serverless** cloud platform on **AWS Lambda** with **Fauna**, reporting directly to the CEO.
- Sped up the build time by over 10x on all **Node.js** codebases, greatly improved developer experience.
- Rewrote the **Python** serverless API to make it fully type-safe, significantly improved system stability.

Ciena Corporation

May 2022 – August 2022

Software Development Engineer Intern - Cloud Computing

- Designed and implemented a graph algorithm in **Golang** to share resource information between servers in a **distributed system** using **gRPC**, resulted in a significant performance boost compared to before.
- Refactored a TOSCA YAML config parser in **Golang** and shortened the parsing speed by over 400%.
- Implemented a TOSCA YAML converter in **Python**, and integrated it with a **Golang** codebase.
- Introduced **CI** pipeline using **Docker** with **GitLab Runner** to improve the productivity of the team.
- Designed and implemented a **React** App with a **NestJS** backend to manage firewall configurations. Integrated with GitLab **OAuth 2.0** and used **JWT** for client authentication and authorization.

PROJECTS

K8S on Budget | [GitHub](#)

January 2023 – April 2023

- Lead a team of 3 classmates to design and implement a **K8S**-like cloud management system.
- Some key features including a fault-tolerant cloud manager using **etcd**, dynamic scaling based on server resource usage, out-of-the-box load balancing with **HAProxy**, multi-cluster support, an isolated architecture using **Docker** containers, a **SolidJS** Web dashboard to monitor all resources in real-time using **WebSocket**, a CLI toolset in **Golang** to issue commands to the cloud manager, and much more!

Radish Battle Pass | [GitHub](#), [DevPost](#), [Demo](#)

February 2023

- Collaborated with hackers in my team and designed a tier-based reward system for Radish (a local food delivery startup) to improve customer engagement as well as user retention.
- Implemented the backend in **NestJS** and the frontend in **React** with **TailwindCSS** for styling.
- Winner** of the Radish Challenge at McHacks 10.