Mia Sun

Electrical and Computer Engineering University of Ottawa, Ottawa

EDUCATION

•Master of Electrical and Computer Engineering

Sept 2024 - (Expected) May 2026

University of Ottawa, Ottawa

•Software Engineering, Bachelor of Engineering

Sept 2018 - Jul 2022

East China Normal University, Shanghai

EXPERIENCE

•Front-end Develop Engineer

Aug 2022 - Jun 2024

Youhuiwanjia Bank

- Developed and maintained customer-facing marketing campaign pages for the mobile banking app using **React** and **Redux**, enhancing user acquisition and engagement by enabling efficient state management.
- Designed and implemented a reusable campaign template system with **TypeScript** and **Webpack**, reducing page development and deployment time by **60%** (from 30 minutes to 12 minutes).
- Optimized front-end performance by 30% using techniques such as lazy loading, code splitting, and tree shaking with Webpack, improving load times and responsiveness across mobile devices.
- Collaborated cross-functionally with designers and backend engineers, integrating **RESTful APIs** and ensuring seamless data flow between the front-end and back-end.
- Containerized front-end applications using **Docker** and deployed on **Kubernetes**, improving scalability and maintainability.
- **Tech Stack:** JavaScript, TypeScript, React, Redux, Vue, Node.js, HTML, CSS, Webpack, Docker, Kubernetes, Git, SVN.

•Front-end Develop Engineer (Intern)

Sept 2021 - Dec 2021

Shanghai Trusted Industrial Control Platform Co., Ltd.

- Developed an interactive dashboard for **a rail safety testing toolkit** used by Shanghai Metro, leveraging **Vue** to enable real-time security insights and improve data visualization.
- Enhanced UI/UX by implementing dynamic progress bars and modular components with **JavaScript** and **CSS**, increasing user satisfaction and usability.
- Optimized development workflow by configuring a ${\bf GitLab}$ ${\bf CI/CD}$ pipeline, accelerating deployment and reducing errors during code integration.
- Tech Stack: JavaScript, HTML, CSS, Vue, Ubuntu Linux, Webpack, Git, GitLab CI/CD.

PERSONAL PROJECTS

•Online Music Streaming Platform

 $A\ full\text{-}stack\ music\ streaming\ application$

- $\ {\rm Implemented} \ {\bf authentication} \ {\bf and} \ {\bf authorization} \ {\bf using} \ {\bf Supabase}, \ {\bf ensuring} \ {\bf secure} \ {\bf user} \ {\bf login} \ {\bf and} \ {\bf registration}.$
- Integrated **Stripe for premium subscriptions**, enabling secure payment processing and recurring billing.
- Developed a scalable backend with PostgreSQL, handling user data, playlists, and song metadata efficiently.
- Styled the application using Tailwind CSS, creating a sleek and modern UI.
- Tech Stack: Next. js 13.4, React, Tailwind CSS, Supabase, PostgreSQL, Stripe.

•On-Campus Mental Health Support Platform

Built a web application providing psychological support services for students

- Built a web application providing psychological support services for students, including hotline scheduling.
- Developed a MySQL database to manage user records and real-time interactions.
- Integrated **Node.js and Axios** for seamless data retrieval and API communication.
- Tech Stack: Node.js, JavaScript, Python, MySQL, HTML, CSS.

TECHNICAL SKILLS

Languages: C/C++, Python, HTML+CSS, JavaScript (ES6+), TypeScript.

Web Dev: React, Redux, Vue, Node.js, HTML5, CSS3 (Sass/LESS), RESTful APIs.

DevOps Tools: Git, Docker, Kubernetes, Webpack, CI/CD (GitLab, Jenkins), Linux (Ubuntu).

Cloud/Databases:Supabase, Firebase, Relational Database(mySql)