

JOEY SIY

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EDUCATION

Western University

Expected Jun 2025

Honours BSc in Computer Science — GPA - 3.9

London, ON

- Western Continuing Admissions Scholarship (merit-based for high entry average and maintained high GPA)
- Dean's Honour List 2021, 2022
- Activities & Societies: Western Mahjong Club (VP Events), Western Esports & Gaming Association (VP Internal)
- Coursework: DSA | OOP | Databases | Statistics | AI | Human-Computer Interaction | Operating Systems

EXPERIENCE

CashEx

Jun 2022 – Dec 2023

Software Engineer Intern

Boston, MA

- Implemented the back-end for email lists by integrating with the **SendGrid API**, facilitating product feature waitlists that allow us to reach an interested userbase, test beta features, and conduct user interviews
- Built admin & growth dashboards in **React**, implementing endpoints for the dashboard using **Python**, **SQLAlchemy**, **GCP**, and **Firebase**, exposing key insights and metrics to growth & operations teams
- Identified sub-optimal logging setup in API endpoints by timing cloud function execution durations; improved back-end logging times by **90%** by optimizing how logging routines were set up through **GCP**
- Independently developed user notification architecture through design patterns such as factory and strategy, **Android** & **iOS** push notification services, and **SendGrid** & **Twilio** integrations, reached **100K+** users
- Developed **unit tests** for each GCP cloud function, enabling automated testing for pull requests and maintaining a serviceable main branch

PROJECTS

Polypages

Oct 2024 – Present

Fullstack Developer

- Building a SaaS web application to translate EPUB files between languages, leveraging **Next.js**, **Tailwind CSS**, and **FastAPI** for a scalable, responsive, and intuitive front-end user experience
- Developed back-end logic for file uploads, translation task management (pause, resume, and delete), and progress tracking with real-time updates via **RESTful APIs**, integrated with front-end
- Implemented **OpenAI** API integration to enable context-aware language translations while preserving original formatting, achieving an average **BLEU** score of **0.80**, ensuring high-quality translations

LobbyIQ

Sep 2023 – Apr 2024

Thesis Student

London, ON

- Developed a comprehensive, stand-alone PDF export solution for complex data visualizations of existing web app by leveraging the **Puppeteer** library to convert **React** web-pages into print-ready formats
- Integrated new export service with existing frontend, backend systems; achieved seamless user flow on frontend and utilizing backend **RESTful APIs** to dynamically retrieve and handle necessary and up-to-date data
- Collaborated with a team of stakeholders, developers, and designers on a **weekly sprint model** to create and iterate over a high-quality and effective user interface to best serve the purposes of end-users
- Enhanced the export solution's efficiency by optimizing configurations and preloading elements, resulting in a **30%** reduction in export time, thereby improving user experience

Western AI

Apr 2020 – Sep 2020

Project Tech Lead

London, ON

- Deployed a **Flask** web app that identifies ASL images and translates to plain text through a machine learning model trained via **TensorFlow Keras** in **Python**; visualized key statistics through **Matplotlib**
- Led **sprint planning** and delegated to a team of three undergraduate students to ensure timely completion
- Overcame technical challenges by studying concepts such as **RNNs**, **computer vision**, and **CNNs** in depth
- Held weekly **SCRUM** style meetings and practiced **agile development** to maintain consistent work ethic

TECHNICAL SKILLS

Languages: Python | Java | C++ | JavaScript | TypeScript | SQL | R | PHP | HTML | CSS | Dart
Frameworks/Libraries: React.JS | Next.JS | Tailwind CSS | Puppeteer | FastAPI | Flask | OpenAI API
Developer Tools: Figma | GitHub | Jira | Terraform | PostgreSQL | Mixpanel | Amplitude | GCP