Max Liu

(647) 326-1169 | maxy.liu@mail.utoronto.ca | linkedin.com/in/maxliu42 | https://maxliu.me

EDUCATION

University of Toronto Sept 2022 – June 2027
Bachelor of Science in Computer Science; Bachelor of Science in Mathematics CGPA: 3.58
Relevant Coursework: Software Design, Databases, Machine Learning,
Algorithm Design, Information Security, Systems Programming

EXPERIENCE

Saige May 2025 – Present
Mississauga, ON (Remote)

- Designed an event-driven batch compute pipeline for proformas, introducing an API to dispatch jobs to AWS SQS and a persistent Python worker to process city-scale workloads reliably and at scale
- Built a scheduled updates service that runs daily jobs for saved searches, generates PDF reports, stores artifacts in Amazon S3, and sends user notifications, with management endpoints and run history
- Developed a scalable, asynchronous batch processing system in Python for generating complex real estate financial proformas, cutting total generation time from 30 seconds to under a second
- Migrated the entire frontend from Material-UI v4 to v5, refactoring over 100+ components to improve performance, reduce technical debt, and enable modern features

University of Toronto (Teaching assistant – Theory of Computation) Aug 2024 – Dec 2024
Mississauga, ON (On-site)

- Led weekly office hours, teaching algorithm correctness, recurrence equations, and formal languages
- Collaborated with the instructor to proctor exams, moderate online discussions, and grade assignments

Savi Finance Sept 2024 – Dec 2024
Toronto, ON (Remote)

- Developed an AI chatbot sidebar using React, integrating seamlessly into web and mobile interfaces
- Integrated the front-end application with OpenAI API for conversational AI, leveraging GraphQL to fetch information and connecting with MongoDB for data storage

PROJECTS

NoteFlip | *FastAPI, React Native, Next.js, PostgreSQL* Feb 2024 – Present

- Developed a cross-platform educational app that converts handwritten notes into interactive flash cards
- Designed a scalable backend using FastAPI and PostgreSQL, integrating Google Cloud Vision for OCR and OpenAI's API for content processing
- Built dual-platform frontend interfaces with React Native for mobile and Next.js for web, ensuring seamless user experience

TextWolfram | *React, Python, Twilio, REST APIs* Apr 2023

- Developed a text messaging conversation service that gives fast responses to technical questions
- Used WolframAlpha Conversational API for generating accurate human-like responses within two seconds of a message, Twilio webhooks with ngrok for deploying to a live server
- Designed an informative user-friendly website using the React framework

TECHNICAL SKILLS

Languages: JavaScript/TypeScript, Python, Java, C/C++, SQL
Frameworks & Libraries: React, React Native, Next.js, Node.js, FastAPI, Tailwind CSS
Databases & Tools: Git, GitHub Actions, Docker, PostgreSQL, MongoDB, Vercel, AWS (SQS, S3)