

ERIC XIAO

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ACADEMICS

Bachelor's in Computer Science, University of Washington-Seattle

Expected Graduation Date: June 2025

Relevant coursework: Java Programming and Data Structures

GPA: 4.0

High School Diploma, Sir John A. Macdonald Secondary School

Graduation Date: June 2021

EXPERIENCE

Mitra Biotechnologies

Waterloo, Ontario

Chief Technology Officer, Software Engineering

Aug 2020 - Present

- Led the development of the Mitra Biotechnologies website, which includes advisor portals to help investors and SAB members support the company, using a **React and Firebase** tech stack—gained interest from **10 advisors** up-to-date.
- Mentoring software developers with debugging and new skill acquisition, reviewing code, delegating new tasks, updating other executives on progress, and organizing design/coding sprints, weekly stand-up meetings, and coffee chats.
- Interviewed and recruited a diverse cohort of applicants for software development during the summer of 2021.

Grand River Chinese School

Waterloo, Ontario

Olympiad Math Teacher

Sep 2018 - June 2021

- Taught a class of Grade 7 and 8 students various Olympiad-level mathematics topics (e.g. combinatorics, analytic geometry).
- Contributed math problems to and proctored the 2018 and 2019 Nine Chapters on the Mathematical Arts Contest.
- Organized the school's first ever online lessons during the start of the COVID-19 pandemic (March 2020 to June 2020), and taught a class of **15** Grade 7 and 8 students online for the 2020-2021 school year.

Harled Inc.

Waterloo, Ontario

Software Engineer Intern

Aug 2020 - Nov 2020

- Worked within a team of **5** students to create a real-time flight-mapping web platform **from scratch** using the **MERN stack**.
- Developed flowcharts and **Figma** prototypes/mockups, and utilized **React and Leaflet.js** to create a flight map and dashboard.
- Worked with **external libraries and polylines** to map out geodesic flight paths for airplanes, and linked the **React** frontend to **Node.js** endpoints and a **MongoDB** database of flight information.

PROJECTS

AirFlip - Javascript, Python, React, Tensorflow, Web Speech API

- A web application that helps users seamlessly swipe through PDF documents using **gesture detection** and **speech recognition**; won a **Finalist (top 17 projects) Award at Hack the North 2021**.
- Developed a **React** user interface that includes a PDF viewer and webcam video footage, and utilized the **Web Speech API** to flip the document after speaking key words.
- Linked the frontend with a **Tensorflow MoveNet** machine learning model that detects head gestures to flip the PDF.

Markov Chain Lyrics - Python, Flask, React, BeautifulSoup, Genius API

- Developed a web application that uses **Markov Chains** to generate lyrics from various song artists.
- Utilized the **Genius API** to obtain URLs to lyrics of popular pieces from an artist, and used **BeautifulSoup** to scrape these lyrics.
- Created a Markov Chain using **OOP in Python** to generate lyrics from previous words, and connected all aspects together using a **Flask** backend server and a **React** user interface.

TECHNICAL SKILLS

- **Programming Languages:** Python, Javascript, HTML, CSS, Java, Octave
- **Frameworks:** React, jQuery, Svelte, React Native, Processing, Flask, Node.js, BeautifulSoup, Pandas, PyTorch
- **Technologies:** Firebase, Figma, Google Cloud

HONORS & AWARDS

- Earned the Best Environmental/Social Good Hack Award at JAMHacks V.
- Won Second Place at MasseyHacks VI.
- Made honour rolls (Group II) and earned Distinction Award (top 25%) for the 2020 CEMC Fermat Math Contest.
- Won fourth place in the 2019 ECOO-CS boardwide competition and third place in regionals, earning a spot to finals.