RIC XIAO

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exiao.me (portfolio site)

ACADEMICS

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

Expected Graduation: June 2025

Relevant courswork: Data Structures and Algorithms, Software Design and Implementation, Systems Programming

Cumulative GPA: 3.93

EXPERIENCE

Amazon - Amazon One

Seattle, United States

June 2023 - Sep 2023

Software Development Engineer Intern

 Developing and architecting a data pipeline that generates daily Amazon One customer reports for partners and is 200% more efficient than the current process.

• Utilizing AWS Lambdas and Kinesis Firehose to process and transfer the data to an S3 bucket while following industry-standard software development guidelines.

Eat Together Seattle, United States

Co-founder/Development Lead

Feb 2022 - Present

- Spearheading the development of a React Native mobile app that helps students organize and schedule meetups, which has gained 60+ beta testers and helped organize 100+ meetups.
- Leading meetings and helping other team members with assigning tasks, code and design reviews, debugging, and app testing sessions.
- Pitched Eat Together at the Dempsey Startup Competition, where we placed in the top 36 teams (out of 83).
- Achieved over \$1500 in funding via sources like the Husky Seed Fund.

Grand River Chinese School

Waterloo, Canada

Olympiad Math Teacher

Sep 2018 - June 2021

- Taught a class of Grade 7 and 8 students various Olympiad-level math 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, Canada

Software Engineer Intern

Aug 2020 - Nov 2020

- Collaborated with a team of 5 students to create a real-time flight-mapping 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.
- Implemented 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

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 object-oriented programming in Python to generate lyrics from previous words, and built a full-stack app using a Flask backend server and a React user interface.

TECHNICAL SKILLS

- Programming Languages: Python, Java, Javascript, HTML, CSS, LaTeX, C/C++, TypeScript
- Frameworks: React, React Native, jQuery, Flask, BeautifulSoup, Processing, Node.js, Svelte, Sklearn, Pandas, PyTorch
- Technologies: Firebase, Google Cloud, AWS, Figma