

# David Liu

d282liu@uwaterloo.ca | david-liu.vercel.app |  /d282liu |  /in/davidliu13

## Skills

**Languages:** JavaScript, Java, TypeScript, Ruby, Python, C/C++, Go, HTML/CSS, SQL

**Frameworks:** React, Ruby on Rails, Express.js, Next.js

**Technologies:** Node.js, AWS, NoSQL, RDBMS, Git, Docker, Jenkins, Datadog, Splunk, Firebase, Linux

## Education

### University of Waterloo

Candidate for BAsC, Systems Design Engineering

Relevant Courses: Data Structures and Algorithms, Human Factors in Design

Waterloo, ON

Sept 2020 - Apr 2025

## Experience

### Motive (formerly KeepTruckin)- Software Engineer

San Francisco, CA

Ruby, Ruby on Rails, Java, Go, PostgreSQL, DataDog

Jan 2023 - Apr 2023

- Owned the refactoring effort of a backend Java service into a Ruby on Rails service, reducing latency by 98% on 2 million daily queries by eliminating the need for gRPC calls from the front end
- Collaborated with database team to overhaul the configuration for the PostgreSQL database of the backend service to allow queries to be made through Active Record, allowing for more efficient testing and debugging
- Orchestrated the development and rollout process of the service by writing a technical design document and project road map, implemented Datadog monitoring to improve the maintainability of the new service

### Zynga - Software Engineer - Words with Friends

San Francisco, CA

Ruby, Ruby on Rails, MySQL, Jenkins, Splunk

Apr 2022 - Aug 2022

- Designed and developed new endpoints and logic within Ruby on Rails for a "mark suspicious user" feature to enhance safety for 50 million active players worldwide
- Refactored Jenkins pipeline Groovy scripts to send Slack messages into the developer channel upon test failures on the master branch, decreasing the time to find and fix bugs by 45%
- Established Hosted Graphite monitoring to track and add alerts to 1000+ metrics

### Cynorix - Full Stack Developer

Waterloo, ON

JavaScript, React, Node.js, Express.js, MongoDB, Firebase, WebSockets

Sep 2021 - Dec 2021

- Spearheaded the end-to-end development of a web-based full-stack video chat meeting management platform complete with Twilio and SendGrid two-factor authentication
- Implemented a functional chat box in the secure video chat application using WebSockets
- Engineered and deployed a secure file sharing web application using SHA hashing and AES encryption

### Pillar to Post - IT Support & Quality Assurance

Toronto, ON

Python, Selenium, Azure DevOps

Jan 2021 - Apr 2021

- Introduced automated unit testing with Python Selenium, increasing testing efficiency by 30%
- Developed and iterated through smoke and regression test scripts to ensure successful deployments of the web and mobile applications relied upon by 550+ franchise locations

## Projects

### Jump Math - UW Blueprint

Jan 2023 - Present

TypeScript, React, GraphQL, Node.js, MongoDB

- Collaborating with other project developers and designers to build a digital assessment tool for the nonprofit Jump Math, which has delivered curriculum to over 2 million students worldwide
- Developed the frontend and backend of the classroom feature based on Figma designs, allowing teachers to create and delete classrooms and add students to classrooms