

Education

B.A.Sc. in Computer Engineering & Innovation @ Queen's University
Kingston, Ontario

April 2025 (Expected)
GPA: 4.16/4.3 (Dean's Scholar)


- The Innovation stream allows me to combine engineering with courses in entrepreneurship and operating a business
- Courses in Computer Architecture, Microprocessors & Embedded Systems, Data Structures & Algorithms, Object-Oriented Programming, Digital Logic, and Operating Systems
- Received Dean Scholars Distinction every semester and the Ontario Professional Engineers Foundation Scholarship

Technical Skills

Languages: | JavaScript | TypeScript | HTML | CSS | SCSS | SQL | Python | C | Java | Assembly | VHDL |
Frameworks: | NodeJS | React | React Native | Flutter |
Tools: | Git | AWS | Firebase | Linux | VSCode | Quartus |


Experience

Full work experience can be seen at linkedin.com/in/joshwfriedman.

**Founding Full Stack Tech Lead**
Nutripair


California (Remote)
August 2023 - Present

- As a member of the upper management team, I work with the CEO and other tech leads to create a product that helps users find food to match their dietary needs while also helping restaurants increase their customer base
- Implemented a CI/CD pipeline using **GitHub Actions** to fully automate the testing and building process of the app, decreasing build times by 50% and increasing developer productivity by 25%
- Guided a team of interns focused on writing tests across the stack using **Jest**, increasing code coverage by 20%
- Documented the various processes and systems in place throughout the tech stack using **Notion**, increasing the onboarding speed of new engineers by over 50%

**Software Engineering Intern (Full Stack)**
Nutripair


California (Remote)
January 2023 - August 2023

- Decreased security vulnerabilities by 50% by implementing an authentication system using **AWS Cognito** across the stack
- Collaborated with backend engineers to implement a **CloudFront** caching layer to reduce loading times by 25%, increasing customer satisfaction by over 65%
- Worked directly with beta tester feedback to iterate a **React + TypeScript** frontend increasing user-reported satisfaction by over 60%

**Software Engineer Intern**
Ollon

Toronto, Ontario (Remote)
June 2023 - August 2023

- Multi-tasked between several software projects to deliver high quality products to clients in a timely manner
- Created and implemented a plan to redevelop a machine learning model in **Python** into more reusable code, increasing accuracy by over 20% and decreasing runtime by over 50%
- Implemented an email status feature to connect the **React** frontend to the **Node.JS** backend, decreasing the volume of error reporting by over 75%
- Met with clients to discuss product requirements, increasing satisfaction on the first revision by 25%


**Director of Information Technology**
Engineering Society of Queen's University

Kingston, Ontario
May 2023 - Present


- Managed IT resources for 7 businesses and 40+ teams overseen by the student society
- Reduced disk usage of the **Linux** main server by over 25%, avoiding a potential cost of over \$1000
- Decreased security vulnerabilities by 85% by implementing recurring security audits and automatic updates

Projects

More projects at joshfriedman.dev. Source code available at github.com/jwiggiff.

Infinipedia 

An AI-powered encyclopedia I built using **Next.JS**. It uses **TypeScript + React** on the frontend and **Node.JS** in the backend to connect with the **OpenAI API**.

Playlist.AI 

A playlist generator powered by **GPT-3** I built with a couple friends. I worked on the frontend using **Vite + React** and **Node.JS + Express** for the backend. It interacts with **OpenAI's API** to generate a playlist based on the inputted songs and uses **Spotify's API** for music searching and retrieving song information.

Autonomous Rover

An autonomous rover built as part of a Mechatronics class. The rover was powered by an **Arduino** and used a combination of **Infrared and Ultrasonic sensors** as well as **PID control** and a robotic arm to complete several capture-the-flag challenges throughout the course.