

Education

Stony Brook University – *B.S. in Computer Science*

Aug 2018 - Dec 2023

- **Courses:** Object-oriented Programming, Data Structure, Computer Networks, Software Development, Algorithm Analysis, Computer Vision, Scripting Languages

Professional Experience

Chrono Power Action (Founder)

2022 - 2023

Developed an extension that helps users boost their productivity in getting around the browser, key features include searching tabs, bookmarks, history etc., short URL navigation, and executing quick commands with keyboard shortcuts.

Published to **Chrome Web Store** and **Edge Add-ons Store** with **9,000+** users as of Feb 2023.

- Came up with the product idea, designed features and UI, hired and communicated with UX designer on Fiverr for graphics design.
- Developed the browser extension using **React** and **Typescript**, and implemented a flexible plugin system that can easily extend the launcher functionality.
- Designed and implemented a **Dynamic Programming**-based searching algorithm and a weighted-score ranking algorithm to match user input against tens of thousands of items with high efficiency and accuracy.

Projects

MIPS Simulator in Browser

2020 - 2021

- Built a MIPS (an instruction set architecture) simulator in **Javascript** that allows users to edit and run **MIPS Assembly** programs directly in the browser in two modes: compiling into **WebAssembly** and single-step execution via Javascript interpretation.
- Implemented system calls that connect the simulator to an emulated JS terminal for console input/output and to the **HTML5/JS Canvas API** for graphical programming, and ported a snake game written in MIPS assembly language on top of the canvas support.

World Data Mapper

2020 - 2021

- Built a website that allows users to create personal accounts to manage custom region data (e.g. COVID19 data) and organize under different map lists.
- Developed the frontend using **React**, with key features like account registration and login, navigation, maps and regions data listing, searching and editing etc; developed the backend using **Express**, **GraphQL** and **MongoDB** for CRUD'ing account information and map data.

BlindMeal App

2020 - 2021

- Led a group of 3 people in developing a blind-box food delivery app using **React Native**, drove the product design and technical discussions, implemented map display and search features using **React Native Map** and **Google Map API**.

Key Qualifications

- **Skills:** Full-stack Web Development, App Development, Browser Extension Development, Object-oriented Design, Algorithm Design, Testing and Debugging
- **Languages:** C, Java, Javascript, Typescript, MIPS Assembly Language
- **Technologies and Frameworks:** React, React Native, Material Design, Node.js, Express, GraphQL, MongoDB