

Nathan Cai

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EDUCATION

Queen's University

Bachelor of Computing

Kingston, ON

Expected May 2025

TECHNICAL SKILLS

Languages: HTML, CSS, JavaScript, Python, Java, C++

Frameworks/Libraries: React, NextJS, Express, jQuery, Jest

Technologies: Git, Linux, NodeJS, REST API, MySQL, MongoDB, SCSS, TypeScript

EXPERIENCE

Back End Developer

Aug 2022 – Present

Queen's Computing Students Association (COMPSA)

Kingston, ON

- Contributed to the development of an event management platform's backend used by 1000+ students in the School of Computing.
- Implemented and tested **over 10 endpoints that accounts up to 20%** of API requests using **Flask and Python**
- Engineered the production monitoring and logging of backend using Python's logging library to streamline production error handling and **reduce debugging time by up to 25%**

Front End Developer

Feb 2021 – Sep 2022

BlackMINT

Toronto, ON

- Used Strapi to create a Content Management System to an audience for 100+ users
- Collaborated with UI/UX designers to make a user friendly and responsive website using **React and MaterialUI**
- Integrated the Google Calendar API onto website to set reminders and book meetings for users for scheduling and time management

Research Assistant

Jul 2021 – Aug 2021

Queen's University Software Analysis Intelligence Lab (SAIL)

Toronto, ON

- Wrote Python scripts to parse data to research the downgrading of NPM dependencies in the NPM ecosystem
- Created a Python script that parsed over 30k lines of data** to download NPM packages and traverse its version history and output results to a CSV file

Hackathon Event Organizer

Mar 2021 – Jun 2021

Recess Hacks

Toronto, ON

- Led a team of 5 web developers to deliver a lightweight, responsive, user-friendly, and accessible website
- Reviewed more than 40 pull requests and resolved merge conflicts to ensure best practices
- Created an SEO friendly website by using keyword rich texts, best code practices, and reducing load times to **garner over 100 participants registered on DevPost**

PROJECTS

FoodFlation | *HTML, SCSS, NextJS, NodeJS, Puppeteer, MySQL*

Apr 2022 – Present

- Programmed a website that allows users to view the price history of grocery store items and to find the cheapest items in the city with NodeJS and NextJS
- Developed a web scraping bot in Puppeteer to scrape the prices of over 15k grocery store items across 70 stores in Canada and the US
- Deployed a NodeJS backend and NextJS frontend to AWS Lambda and Vercel
- Managed the SEO of website using Google Search Console and sitemaps to **garner over 200 visitors**

Email Cleaner | *TypeScript, NPM, GitHub Actions*

Feb 2020

- Created and launched a package on NPM with **up to 750 downloads** in the initial 2 weeks
- Created Continuous Delivery workflows with GitHub Actions to reduce deployment times by 50%
- Wrote over 700 lines of unit tests using the Jest testing library with **over 80% test coverage**