

Brian Chang

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Skills

Frontend:

React React-Router React-Redux Next.js

TypeScript MaterialUI Ant Design Tailwind

Languages:

JavaScript Python

HTML/CSS C++

Backend:

Node.js Express.js

MongoDB

Dev Tools:

Git Puppeteer Jest Postman NVDA/JAWS

Education

University of Waterloo | Mechatronics Honours | Bachelors of Engineering

Cumulative GPA: 85

Relevant Courses:

SYDE 522: Foundations of Artificial Intelligence

GENE 121: Digital Computation

MTE 262: Microprocessors and Digital Logic

MTE 140: Data Structures and Algorithms

SYDE 548: User Centered Design Methods

SYDE 543: Cognitive Ergonomics

Meta Marketing Analytics Professional Certificate Course

Relevant Courses:

Data Analytics Methods for Marketing

Statistics for Marketing

Python Data Analytics

Data Analysis with Spreadsheets and SQL

Experience

Freelance Developer | December 2023 - Present |  Remote |  Node.js |  Puppeteer.js |  Git

Real Estate Report Extraction

- Developed a Node.js solution to automate data extraction from real estate reports using pixel positioning, eliminating on average 4 hours of manual time, then standardizing the data into a user-friendly CSV format for visualization.
- Collaborated closely with project stakeholders to create scalable and versatile solutions for handling missing and outdated data, enabling future data aggregation across various real estate markets.

Jobs Data Web Scraper

- Led a web automation project for a multi-million-dollar real estate firm to gather job postings across Greater Vancouver, developing custom scraping scripts with Puppeteer to gather postings by industry, salary, location, and remote work availability.
- Optimized scraping algorithms to reduce runtime by 50% from 1.5 hours to 45 minutes and implemented a modular code structure for scalability, while coordinating with stakeholders to continuously refine project requirements.

Dozr | Developer | May - September 2021 |  Kitchener, Canada |  Node.js |  EJS |  MongoDB |  React |  React-Redux |  TypeScript |  Postman |  Git

- Solely accomplished overhaul of the Node.js backend and EJS email infrastructure, resulting in consolidation of follow-up emails for purchases across all Front-end platforms, accelerated completion to under 1 month for shareholder presentation.
- Re-implemented user purchase tracking, creating new order summary pages using React and Node.js, delivering a production-ready front end within 2 weeks.
- Fully implemented user analytics through tools such as Google Analytics and Bing Ad Conversion, connecting all user interactions within Dozr's primary ecommerce platform to the company's CRM for future marketing campaigns.

BenQ | Developer | May - August 2019 & January - April 2020 |  Taipei, Taiwan |  Node.js |  React |  Socket.io |  WebRTC |  Git

- Developed an extensive chrome extension for Mantis Bug tracker using React and JS, accelerating QA team velocity and reducing daily time spent reporting bugs by 10% (48 minutes).
- Prototyped stream broadcasting services using WebRTC and Socket.io, completing versatile proof of concepts within 1 month for presentation to multiple product leads.

Newtopia | Developer | September - December 2018 |  Toronto, Canada |  React |  React Native |  React-Redux |  Jest |  Git

- Achieved improved error handling and user engagement by designing, creating, and implementing a Redux-based log for developer observation.
- Increased efficiency and compatibility of the mobile app's endpoint by refactoring and adding JSDoc documentation to all endpoints
- Enhanced code coverage from 80% to 90% of the entire code base by writing nearly 100 unit tests using Jest.
- Ensured WCAG compliance with accessibility enhancements across 20 web pages, as well conducted meticulous NVDA and JAWS screen reader testing, resolving all issues within 3 weeks.
- Routinely fixed critical bugs, including forking 3rd-party open source dependencies and editing/contributing to their code.