Kevin **Ding**

UNIVERSITY OF WATERLOO - 2B COMPUTER SCIENCE

(519) 729 0288 | ✉ k24ding@uwaterloo.ca | 🏠 tacticaltofu.github.io | 🐙 tacticaltofu | in ding-kevin

Skills

Languages	JavaScript, Python, C, C++, Racket, SQL, HTML/CSS
Frameworks/Libraries	React.js, Redux, Node.js, Express.js, Jest, Enzyme, Django
Tools/Technologies	Git, PostgreSQL, MongoDB, Selenium, Puppeteer, JIRA, Netlify, Heroku

Experience

The Co-operators Group Ltd.   Kitchener, ON
FULL STACK SOFTWARE DEVELOPER   *Jan 2021 - Apr 2021*

- Redesigned an internal server migration and currency tracking web portal using **React/Redux** on the front-end, with **Node.js**, **Express**, and **MongoDB** on the back-end
- Improved application performance by refactoring to use server-side pagination, reducing load times by 80%
- Created a request manager to ensure asynchronous API calls returned responses in a predictable order
- Increased code reuse by developing an auto logout higher-order component
- Developed and maintained unit tests using **Jest**, **Enzyme**, and **SuperTest**
- Effectively worked within a small team following an **Agile** workflow

SAP Canada Inc.   Waterloo, ON
QUALITY ENGINEERING AUTOMATION DEVELOPER   *May 2020 - Aug 2020*

- Conducted exploratory and automated testing on GUI tools for SAP HANA (Cockpit and HRTT)
- Developed and maintained automation test cases using **Python**, **Selenium**, and **HANA SQL**
- Reviewed automation test results for failures and logged related issues to **JIRA** and the **Quality Management System (QMS)**
- Worked with product developers to reproduce bug reports and verify bug fixes
- Developed a **Chrome extension** to add client side functionality to QMS, speeding up the automation verification process

Projects

Graphic Novel Reader   source code
Front-end comic reading client for the MangaDex API   *Feb 2021 - Present*

- Designed and developed a responsive, mobile first single page application using **React/Redux** and **Material-UI**
- Created custom hooks for data fetching to easily adapt to breaking changes in the external API
- Implemented **full text searching** of over 50,000 comic entries in **PostgreSQL**
- Optimized searches by storing a text searchable vector column and creating a GIN index, reducing average execution time from over 5 seconds to less than 100ms

Reddit Clone   source code
Social news and discussion website very similar to Reddit   *Mar 2021 - Present*

- Developed a functional clone of Reddit using React/Redux, **Chakra UI**, **Node.js**, **Express**, and PostgreSQL
- Deployed the front-end to **Netlify** and the back-end to **Heroku**
- Designed a **PostgreSQL** database schema for storing posts, comments/replies, and upvotes
- Created a recursive **React tree component** to support nested comments and conversation threading
- Performed API requests and data fetching with **Redux** and **Redux Thunk**
- Increased code reuse and cohesion by using a separate reducer to handle loading and error states
- Implemented **JSON web token** based authentication with support for multiple sessions using custom Express middleware

Education

University of Waterloo   Waterloo, ON
CANDIDATE FOR BACHELOR OF COMPUTER SCIENCE   *Sept 2019 - Present*

- Term Dean's Honours List Fall 2019, Winter 2020, Fall 2020 (90% cGPA)
- Recipient of the Waterloo County Entrance Scholarship ($4000) & President's Scholarship ($2000)