

Harrison Brown

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Skills

Languages: Python (high proficiency), C (high proficiency), Go (high proficiency), Java (proficient), Typescript/Javascript (prior experience), C++ (prior experience)

Technologies: git (proficient), linux (proficient), Postgresql (proficient), Oracle DB (proficient), heroku (proficient), aws (prior experience), GraphQL (prior experience)

Experience

Network Database Intern Oct 2020 - May 2021 – University of California, Merced

- Developed and maintained a real time monitoring system for routers and switches to catch potentially nefarious devices on the university research network using Oracle database 19c.

Web Developer, Feb 2020 - Aug 2020 – Twist & Twirl Consulting

- Maintained and migrated websites between content management systems, developed websites, and automated database management.

Personal Projects

apizza - (<https://github.com/harrybrwn/apizza>)

Open Source command line tool for ordering pizza from Dominos.

- Managed my open source project by utilizing unit tests, test coverage, CI/CD tools, and good software design principles.
- Utilized packet analyzers, browser dev tools, and computer networking knowledge in order to reverse engineer Dominos' private web API.
- Maintained 10,000 lines of code by using best practices like modularization, dependency inversion, single responsibility, limiting repetition, interface segregation, and simplicity.

mercedtime.com - (<https://github.com/mercedtime>)

- Full-stack web app to improve UC Merced's (UCM) course catalog by supporting course searches, filter parameters, calendar management, and notifications for course openings
- Got real-time synchronization and notifications by periodically parsing UCM's catalog webpage and storing the changes in Postgres
- Improved upon UCM's catalog webpage with good UI/UX by using React/Typescript with common UI libraries and a GraphQL backend API

hashmap - (<https://github.com/harrybrwn/hashmap>)

- Created a hashtable that handled 1,000,000 separate get, put, delete operations each in under 500ms using auxiliary data structures such as stacks, avl-trees, and bitmaps

Education

University of California Merced - Expected Graduation in Spring 2021

Computer Science and Engineering, B.S.

Activities/Leadership

ACM (Association for Computing Machinery) - General member

- Contributed to club projects such as the club Website and a event management discord bot

Hackathons - Attended HackMerced at UC Merced and SD Hacks at UC San Diego

- Used web scraping and web APIs to build a tool to notify students as soon as classes they need are available