

# Harrison Brown

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## Skills

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

**Technologies:** PostgreSQL (high proficiency), AWS (proficient), Git (proficient), linux (proficient), React (proficient)

## Experience

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### Software Engineering 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.
- Helped users obtain actionable insights from my monitoring system by writing internal tools that aided data visibility and data management.
- Worked closely with the security and I.T. teams to understand the network and the threat model

### Web Development Intern

Feb 2020 - Aug 2020

*Twist & Twirl Consulting*

- Automated WordPress post management by connecting to MySQL using PHP to update, create, or remove posts dynamically without user input.
- Satisfied customer needs by writing WordPress plugins for website functions such as randomized quotes, email contacts, or lightweight themes.

## Education

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### University of California Merced

Aug 2017 - Aug 2021

*Computer Science and Engineering, B.S.*

## Personal Projects

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### remora

- Built a distributed web crawler and search engine using Go, RabbitMQ, Redis, and PostgreSQL
- Achieved a crawl speed of 8 million web pages every 24 hours (on old hardware) by using distributed caching and scaling horizontally.

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

- Created a full-stack web app with Go/React to improve UC Merced's course catalog UI/UX by displaying courses with filtering, searching, calendar/schedule management, and notifications.
- Achieved near-real-time synchronization by periodically parsing UCM's catalog web page and storing the changes in PostgreSQL for consumption by a RESTful API and GraphQL API

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

*Open Source command line tool for ordering pizza from Dominos.*

- Managed my project by writing unit tests, tracking test coverage, and using CI/CD tools
- Utilized packet analyzers, browser dev tools, and computer networking knowledge in order to reverse engineer Dominos' RESTful API.

## Activities/Leadership

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### ACM (Association for Computing Machinery)

Sep 2018 - May 2021

*General member*

- Led and contributed to club projects such as the club website and a discord bot.
- Managed the development on the event management discord bot project "Eventlify" using VSCode's Live share plugin to help less experienced developers collaborate. Project can be found at [github.com/UCMercedACM/Eventlify/tree/team1](https://github.com/UCMercedACM/Eventlify/tree/team1).