

# Rohan Kapur

## Software Engineer

Graduated in 2023 from UC Santa Cruz with a degree in computer science and mathematics and a minor in computer engineering. Extensive experience using Linux and macOS, developing full-stack web and mobile apps using React/React Native, programming in Python/JavaScript/TypeScript/C/C++/Java/Haskell, SQL database management, Google Cloud deployments, Docker container configuration, programming embedded and distributed systems. Adept problem solver, communicator, learner, teacher, and team player who loves to engineer solutions to real world problems. Proponent of open-source software. Open to full time work/research/teaching opportunities.



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## 🏠 EDUCATION

### University of California, Santa Cruz

Santa Cruz, CA Sept. 2019 - Dec. 2023

B.S. in Computer Science

B.A. in Pure Mathematics

Minor in Computer Engineering

Relevant Coursework:

CSE 12 (Assembly Programming in MIPS)  
CSE 13S (Computer Systems C Programming)  
CSE 101 (Data structures and Algorithms in C/C++)  
CSE 120 (Computer Architecture)  
CSE 100 (Logic Design using Verilog)  
CSE 121 (Embedded Systems)  
CSE 114A (Functional Programming in Haskell)  
CSE 115A+D (Software Engineering Projects)  
CSE 138 (Distributed Systems)

## 💻 TECHNICAL SKILLS

### Programming Languages

Python, JavaScript/TypeScript, C/C++, Java, Bash, Haskell, Lisp, RISC-V/MIPS Assembly, Verilog HDL, (Postgre)SQL, R, Matlab

### Frameworks

React, React Native, Flask, FastAPI, Numpy, Matplotlib, PHP Laravel, ESLint, Vue.js, Next.js, Angular, Sqlite, Qt, Kubernetes, Agile development

### Platforms

Linux (Arch/Ubuntu/Fedora/etc.), macOS, Google Cloud Platform, Firebase/Firestore, ARM ISA, ESP32/Arduino microcontrollers, Raspberry Pi

### Developer Tools

VSCode (devcontainer setup, etc.), L<sup>A</sup>T<sub>E</sub>X, Git, GitHub, GitLab, Docker, Snowflake, Postman, Jira, Confluence, PyCharm, IntelliJ, Eclipse, Vim, Emacs

### Communication

Slack, Discord, Zulip, Microsoft Teams, Zoom, Google Meet

## 👛 WORK EXPERIENCE

### Baskin Day Student Volunteer

University of California, Santa Cruz

Santa Cruz, CA

June 2023 - Oct. 2023

Volunteered as the outreach coordinator for the 2023 Baskin Day event, an annual event that showcases the clubs and research opportunities associated with the Baskin School of Engineering (BSOE), as well as providing opportunities for students to connect with each other and industry professionals as they prepare for life after graduation. Responsibilities included attending weekly check-in meetings; leading the team tasked with reaching out to professors and industry representatives interested in attending the event, as well as organizing student volunteers; and helping out on the day of the event.

### Undergraduate Student Tutor

University of California, Santa Cruz

Santa Cruz, CA

Jan. 2021 - Dec. 2023

Trained and worked extensively as a peer group tutor for several lower and upper-division computer science and math courses with the campus Learning Support Services and the Baskin Engineering school while managing a full-time student workload for nearly 3 years. Held engaging daily/weekly group tutoring sessions which helped students learn tough material more effectively, saving them vital time and money.

### Software Engineering Intern

F5 Networks

Seattle, WA

June 2022 - Sept. 2022

Worked at F5 corporate office in Seattle, WA during Summer 2022 with internal data management team to aid in SaaS transition for BIG-IP product line. Facilitated transition of internal data from on-site databases to cloud-hosted database servers using Snowflake, with continuous deployment managed using Docker containers deployed in GitHub workflows. Worked with Jira to manage Agile workflow and Confluence for documentation.

## PROJECTS

### **CruzHacks 2024 Hackathon**

*React Native, Typescript, Express.js, sqlite, Google Cloud, Docker, Google Maps API*  
January 2024

Participated with three others in the 2024 CruzHacks hackathon held in-person at UC Santa Cruz, where I helped design and program the containerized Express.js backend database hosted in Google Cloud, as well as the React Native front end for a cross-platform mobile application that allows students to add and share the locations of events around their campus using the built-in Google Maps interface.

### **Choreographic Programming Summer Research**

*Typescript, Node.js, Git/Github, ESLint, Distributed Systems*  
Summer 2023

Worked with UCSC grad student to develop novel choreographic programming library in Typescript for facilitating development of deadlock-free distributed system programs. Mainly helped write custom ESLint linting rules for the library, as well as using the library to implement RSA key exchange.

### **Cross-platform Restroom-finding Mobile App**

*React Native, Firebase/Firestore, Github, Git, Agile*  
Fall 2022

Worked with a five-student team in CSE 115A to create cross-platform mobile app using React Native that crowd-sources and lets users locate/rate restrooms nearby. Followed Agile practices over 6 sprint cycles with weekly scrum and stand-up meetings. Primarily helped develop the front-end and necessary documentation.