Mukhul Manicka Sivakumar

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EDUCATION

University of California Santa Cruz — September 2022 – December 2025

*B.S. Computer Science | **GPA**: 3.81/4.0* — *Santa Cruz, CA*

- **Relevant Courses**: Data Structures and Algorithms, Computer Systems and C Programming, Artificial Intelligence, Introduction to Computer Networks, Computer Architecture, Principles of Computer System Design

TECHNICAL SKILLS

Languages: Python, C/C++, Java, Kotlin, HTML/CSS, JavaScript, TypeScript, SwiftUI, RISC-V
Development Tools: VS Code, IntelliJ, PyCharm, Postman, Android Studio, Xcode, Vim
Technologies: Git, Docker, Firebase, PostgreSQL, REST APIs
Tools: Spring Boot, ReactJS, Next.js, Expo, Flask

EXPERIENCE

Web Developer — September 2024 – Present

UCSC Blueprint — *Santa Cruz, CA*

- Collaborated with the non-profit, Santa Cruz Mountain Arts Center, to help create a simple software solution to a real world problem.
- Worked closely with team members to build an **IOS/Android application** that meets client goals in an **Agile environment**.

PROJECTS

E-Commerce Store | *Spring Boot 3, Spring Cloud, PostgreSQL* — June 2024

- Developed an online store utilizing Spring Boot 3 and Spring Cloud, demonstrating expertise in distributed systems and Java programming.
- Implemented the API Gateway, Config, and Discovery Server, three essential microservices components, showcasing a thorough comprehension of microservices architectural patterns.
- Integrated Zipkin to improve system observability and debugging, and used OpenFeign for effective inter-service communication.
- Utilized PostgreSQL for data persistence, Spring Cloud Netflix Eureka for service registry and discovery, and Spring Cloud Config for centralized configuration management.

SlugAssist | *Chrome, Python, Flask, HTML/CSS, JavaScript* — January 2024

- Successfully created a Google Chrome extension that helps students enroll in classes by reducing the time needed to research the credibility of professors.
- Allows students to easily view the UCSC instructor name, department, average rating, difficulty rating, total ratings, and percentage of people who would take a class with the teacher again.
- Deployed a Flask server to keep web scraper active while the user browses through classes.

PrivateChat | *Python, Socket, Cryptography, RSA, AES* — November 2023

- Designed and implemented my own secure messaging system using end-to-end encryption (E2EE) to ensure privacy and integrity of communication between users.
- Ensured both encryption/decryption using the Ceaser Cipher, demonstrating proficiency in cryptography.
- Built a Python-based client-server architecture using sockets for real-time encrypted communication between multiple clients.
- Utilized RSA for secure asymmetric key exchange and AES for fast and secure symmetric encryption of message content.

CERTIFICATIONS

AWS Certified Cloud Practitioner: Using AWS services demonstrated foundational proficiency in AWS Cloud, its services, and associated terminology.

Kotlin for Java Developers: Utilized Kotlin in various small-scale projects, developing an understanding of functional programming.