

# Mukhul Manicka Sivakumar

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## SUMMARY

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Highly motivated Computer Science student at UC Santa Cruz with a strong foundation in software engineering, full-stack development, and cloud infrastructure. Experienced in building scalable applications using technologies like React, AWS, Spring Boot, and PostgreSQL. Demonstrated ability to contribute both independently and in team settings through real-world projects. Skilled in Java, RESTful APIs, and the AWS Cloud, with extensive experience in GitHub Actions, Docker, and Kubernetes.

## EDUCATION

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### UNIVERSITY OF CALIFORNIA SANTA CRUZ

Bachelor of Science, Computer Science

Cumulative GPA: 3.81/4.0; Dean's Honor List 5x

Relevant Coursework: Data Structures and Algorithms, Object Oriented Programming; Operating Systems; Artificial Intelligence, Advanced Computer Networks, Advanced Programming in C++

Santa Cruz, CA

Expected December 2025

## EXPERIENCE

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### PALANTIR

Winter Fellowship

Remote, CA

Dec 2024 – Jan 2025

- Developed a predictive inventory management system using Palantir Foundry, and Palantir Pipeline in the span of 2 weeks
- Designed a real-time analytics dashboards with React and Typescript to monitor supply chain KPIs
- Leveraged Palantir AIP to build a demand forecasting model powered by LLMs, improving warehouse accuracy by 40%

### UCSC BLUEPRINT

Software Developer

Santa Cruz, CA

Nov 2024 – Present

- Collaborated with multiple non-profit organizations in an agile environment to create meaningful software applications
- Led the creation of both a volunteer mobile app and website using expo, react, and firebase for 100+ users

## PROJECTS

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### NES STYLE GAME EMULATOR | C++, SDL2, Github Actions

Mar 2025

- Developed a fully functional NES-style emulator in C++ with SDL2 for cross-platform graphics and input handling
- Implemented CPU instruction decoding, memory mapping, and PPU rendering logic
- Automated CI/CD with GitHub Actions for build, test, and release workflows

### SERVERLESS WEB APPLICATION ON AWS | AWS Lambda, DynamoDB, API Gateway, AWS S3

Jan 2025

- Designed and implemented a scalable serverless web application using AWS Lambda, DynamoDB, and S3 allowing users to seamlessly perform CRUD operations
- Optimized the application's performance and user experience by hosting static files (HTML, CSS, and JavaScript) on S3 and delivering them via CloudFront distribution, ensuring reduced latency and rapid content delivery

### E COMMERCE WEBSITE | Java, Spring Boot, Microservices, PostgreSQL

Jun 2024

- Built an online store utilizing Spring Boot 3 and Spring Cloud, demonstrating expertise in distributed systems and Java
- Implemented the API Gateway, Config, and Discovery Server, showcasing a thorough comprehension of microservice architecture patterns
- Utilized PostgreSQL for data persistence, Spring Cloud Netflix Eureka for service registry and discovery, and Spring Cloud Config for centralized configuration management

## TECHNICAL SKILLS

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**LANGUAGES:** Python, C/C++, Java, Kotlin, HTML/CSS, JavaScript, TypeScript, SwiftUI, RISC-V

**DEVELOPMENT TOOLS:** VS Code, IntelliJ, PyCharm, Postman, Android Studio, Xcode, Vim, Figma

**TECHNOLOGIES:** Git, Docker, Firebase, PostgreSQL, REST APIs

**FRAMEWORKS:** Spring Boot, ReactJS, Next.js, Expo

**CERTIFICATIONS:** AWS Certified Cloud Practitioner, Kotlin for Java Developers (Coursera)