

Siddartha Gurugubelli

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SUMMARY

Software Engineer with about 2 years of full-stack experience across backend APIs, and AWS cloud. Expertise in building scalable, testable systems and collaborating with cross-functional teams to deliver user-centric features using modern frameworks.

EDUCATION

M.S. Computer Science | Arizona State University, Tempe, AZ

May 2025

- Relevant Coursework: Mobile Computing, Data Visualization, Data Processing at Scale, Software Security, Data Structures and Algorithms, Object Oriented Design, Data Mining

3.87 GPA

TECHNICAL SKILLS AND CERTIFICATIONS

Programming Languages: Java, Python, JavaScript, C, C++, SQL, NoSQL

Backend & Web: Spring boot, FAST API, REST API, NodeJS, Maven, Gradle, Flask, Postman, Swagger

Frontend: HTML, CSS, React.js, Redux, Bootstrap, Material UI Mocha, Chai, XML Layouts

Databases, and OS: PostgreSQL, MySQL, PLSQL, Dynamo DB, SQLite, Unix/Linux, Bash

Cloud: Amazon MQ, AWS Step Functions, CloudWatch, AWS Lambda, AWS S3, SNS, SES, EC2, AWS Cognito, ECS

CI/CD: Docker, Jenkins, Heroku, Kubernetes, Git, GitHub, Ansible

Certifications: Microsoft Certified: Azure Fundamentals, AZ-900

PROFESSIONAL EXPERIENCE

Compassion AI LLC, Chicago, IL: Software Engineer Intern

Jun 2024 – Nov 2024

- Introduced **key-set pagination** in **FastAPI** endpoints and optimized DynamoDB query filters, cutting wasted **RCUs** by **60%**.
- Implemented **Global Secondary Indexes (GSI)** in **DynamoDB**, accelerating data access performance and reducing **P99** latency from **500ms** to **320ms**.
- Cut report generation time from **45** to **10** minutes by implementing **AWS Step Functions** to parallelize **AWS Lambda** functions.
- Optimized **Kubernetes** clusters on **Amazon EKS** by leveraging **EC2 Spot Instances**, reducing infrastructure costs by up to **70%**.
- Engineered a resilient **multipart S3** upload system using **presigned URLs**, **ETag** tracking, retries, and **Transfer Acceleration**-reduced upload failures by **97%** and enhanced global performance.
- Built data-intensive company dashboards with **ReactJS**, **HTML5**, and **CSS** for insightful metric representation.
- Implemented **state management** using **React** and **Redux** for complex states, facilitating seamless data flow.

Capgemini, Mumbai, India: Software Engineer

Oct 2022 – Aug 2023

- Decomposed a legacy **monolith** into Spring Boot **microservices** with **RESTful APIs** and centralized config management, enabling **independent deployments** and reducing release cycle times.
- Implemented token bucket **rate limiting** algorithm to manage **API traffic**, lowering **error rates** due to traffic spikes by **20%**.
- Enhanced web application security with **JWT**-based authentication and **OAuth 2.0** using Spring Security, reducing **unauthorized access** attempts by **10%**.
- Integrated **Apache Kafka** for event-driven architectures, improving **system decoupling** and real-time data flow.
- Optimized database schemas with **stored procedures** and **nested SQL queries**, boosting **query performance** by **22%**.
- Achieved **92% code coverage** with **JUnit** tests, reducing **code smells** by **16%** through refactoring and static analysis.
- Utilized **Git** and **GitHub** for **version control**, streamlining collaboration and code management processes.

Capgemini, India: Software Engineer Intern

Feb 2022 – May 2022

- Developed a robust seat-booking application using **Python**, **ReactJS**, and **microservices** architecture, improving backend latency by **12%** through **caching** integration.
- Implemented **Docker** containerization deployed via **AWS ECS**, enabling **rapid autoscaling** during **high throughput** scenarios up to **50,000 RPM**, and reducing deployment time by **19%**.
- Actively participated in Agile processes, Code reviews, documentation, and delivering quality software solutions.

PROJECTS

Smart COVID Clinic Website

- Built a full-stack web application using **ReactJS**, **Spring Boot**, and **PostgreSQL** to streamline clinic scheduling and manage doctor-patient appointment management during the pandemic
- Built a responsive, **role-based** booking interface and tested **REST APIs** via **Postman** to reduce wait times and improve clinic flow.

E-Commerce Website

- Designed and launched a dynamic e-commerce site using **Spring Boot (Java)** and **React**, implementing **design patterns**.
- Implemented a set of independent, loosely coupled **10+ microservices** to ensure modularity, maintenance, scalability architecture.
- Boosted app performance by using **Redis** cache and parallel processing using **multi-threading** concepts.