Dheeraj Gedupudi

Santa Clara, CA

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EDUCATION

Santa Clara University   Santa Clara, CA
Master of Science | Computer Science & Engineering   2023 – 2025
Coursework: Algorithms, Object Oriented Design, Operating Systems, Distributed Systems, Cloud Computing, Machine Learning

Osmania University   Hyderabad, India
Bachelor of Engineering | Computer Science & Engineering   2018 – 2022
Coursework: Data Structures, Linear Algebra, Computer Networks, Software Engineering, Web Programming, Databases

SKILLS

Languages: Java, Ruby, C, Python, R, SQL, JavaScript, TypeScript, HTML, CSS
Frameworks & Libraries: Spring, REST, Rails, Sinatra, React.js, Next.js, Node.js, JQuery, Bootstrap, Tailwind CSS, Agile
Databases: MySQL, PostgreSQL, MongoDB
Platforms/Tools: Amazon Web Services (AWS), Docker, Kubernetes, Apache Kafka, Git, Maven, Hibernate, JUnit, Mockito, Jira
Algorithms & Data Structures: Solved 1,200 + problems across Codeforces, CodeChef, LeetCode, and HackerRank

WORK EXPERIENCE

Software Engineer Intern   Chicago, IL
HaleMind Inc (Health Tech firm providing a connected electronic record platform)   Summer 2024
- Identified solutions to improve application performance by **45%** by analyzing page load bottlenecks
- Streamlined appointment creation by **asynchronously** fetching data across pages, reducing initial page load times by **93%**
- Optimized SQL query efficiency by eliminating **N+1 query issues** and implementing **pagination**, resulting in **75%** reduction in database queries and improving response times by up to **60%**

Software Engineer   Hyderabad, India
Fervid Smart Solutions (Edtech firm providing services to emerging governments)   2022 – 2023
- Engineered scalable backend architecture for Learning Management System supporting **5,000+** daily active users through implementation of **modular Spring Boot architecture**
- Revamped MySQL schema with **indexing**, restructuring tables, and query optimization, reducing data retrieval time by **60%**

Software Developer Intern   Hyderabad, India
Zemoso Technologies (Consulting firm specializing in MVP services)   Summer 2022
- Refactored a Spring Boot app using **SOLID principles** and **Design Patterns**, elevating test coverage from **60%** to **89%**
- Crafted React UIs for dish selection and checkout in Restaurant MVP, refining UX and reducing order time by **25%**

PROJECTS (in last 6 months)

KubeOptimizer | Multi-Criteria Kubernetes Node Autoscaling | ⏻
- Engineered **reactive autoscaling system** using PROMETHEE algorithm that manages Kubernetes nodes based on multiple criteria (CPU, memory, network, storage), reducing instance hours by **35%**
- **Technologies:** Kubernetes, AWS (EKS, ECR, EC2, CloudWatch), Docker, Java, Spring Boot, Bash

Habit Tracker | AWS Serverless Event-Driven Productivity System
- Developed **serverless**, **event-driven** habit-tracking application using **AWS services** (Lambda, DynamoDB, API Gateway, Cognito, EventBridge, SNS) featuring secure authentication, real-time notifications, and scheduled reminders
- **Technologies:** AWS, Java, Python, JavaScript, Next.js, RESTful APIs

Real Time Sports Hub | Fault-Tolerant Publisher-Subscriber Framework | ⏻
- Led team of three to develop fault-tolerant sports platform with **publisher-broker-subscriber architecture**, implementing **leader election** and **data replication** mechanisms for reliability and real-time responsiveness
- **Technologies:** Java, Spring Boot, Apache Kafka, RESTful APIs

Sorting Visualizer | Interactive Algorithm Demonstration Tool | [Demo Link] | ⏻
- Built visualizer featuring five sorting algorithms with **interactive controls**, including an innovative visualization of auxiliary array interactions to illustrate Merge Sort's **non-in-place** behavior, deployed on Netlify for accessibility
- **Technologies:** JavaScript, React.js

Restaurant Finder | JPA-Based Multi-Criteria Search Engine | ⏻
- Built restaurant search platform with review capabilities, powered by **JPA Specification** for **multi-criteria filtering** across cuisine, price range, dietary options, amenities, operating hours, and ratings
- **Technologies:** Java, Spring Boot, Thymeleaf, MySQL