

Sinchana K J

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SUMMARY

Computer Science (AI & ML) undergraduate with strong foundations in Data Structures, Algorithms, and Object-Oriented Programming. Experienced in building scalable full-stack applications and REST APIs using Java, Spring Boot, and React. Seeking Software Engineering opportunities to develop efficient, real-world solutions.

EDUCATION

Vidyavardhaka College of Engineering <i>B.E. in Computer Science and Engineering (AI & ML) CGPA: 9.08/10 (till 5th sem)</i>	Mysuru 2023 – 2027
Vijaya Vittala Composite PU College <i>Senior Secondary (PUC) 91.16%</i>	Mysuru 2021 – 2023
St. Joseph's School <i>Secondary (SSLC) 88.8%</i>	Mysuru 2020 – 2021

SKILLS

Programming Languages: Java, Python, C/C++, JavaScript
Systems & Architecture: Distributed Systems, Multi-tiered Systems, RESTful APIs, Event-Driven Architecture
Databases & Cloud: MySQL (Relational Databases), MongoDB, Redis, AWS (EC2, Cloud Foundations), Firebase
Technologies & Frameworks: Spring Boot, Kafka, Docker, React, Node.js, Next.js
Tools & DevOps: CI/CD Pipelines, Unit Testing, Agile Methodologies

PROJECTS

Smart Order Management System (E-commerce Backend) | *Java, Spring Boot, MySQL, Redis*

- Designed and developed a scalable order management backend system handling 10,000+ end-to-end workflows including order creation, inventory validation, and payment status tracking.
- Built RESTful APIs using Spring Boot to manage users, products, and orders, ensuring a modular and maintainable architecture with 80% code coverage through unit testing.
- Implemented optimized database queries and indexing in MySQL, and integrated Redis caching to handle high-read scenarios, achieving low-latency data retrieval and reducing database load by 40%.
- Applied object-oriented design principles to improve system scalability and maintainability.

FoodWaste Relief – Surplus Distribution Platform | *Python, Next.js, MySQL* | [Live App](#)

- Engineered a multi-tier marketplace using a scalable backend and relational database (MySQL) with optimized indexing to manage the donation lifecycle and NGO onboarding.
- Integrated a machine learning spoilage prediction engine to optimize surplus routing, effectively applying predictive modeling to solve complex logistical challenges.
- Implemented secure QR handoff verification and automated status logging to ensure end-to-end accountability and improve system observability in an agile environment.

Distributed Developer Portfolio with GitHub Sync | *Java, Docker, AWS EC2, Next.js* | [Live App](#)

- Built a full-stack platform that aggregates live GitHub repository data via GraphQL API, featuring a dynamic exploration index and multi-tag filtering.
- Containerized the application using Docker and deployed it on AWS EC2 via automated CI/CD pipelines, building a scalable backend system that handles 1,000+ daily searches.
- Integrated an AI-powered repository summarization and conversational interface to improve search query resolution times by 35%.

ACHIEVEMENTS

- Developed end-to-end projects involving distributed systems, REST APIs, and cloud deployment, showcasing ability to handle real-world engineering challenges.
- Hackathons:** Participated in university hackathons, collaborating in agile teams to design and prototype scalable software solutions under time constraints.

CERTIFICATIONS

- AWS Academy Graduate – Cloud Foundations**
- AWS Academy Graduate – Generative AI Foundations**
- Machine Learning Specialization (Coursera):** Focused on predictive modeling, optimization mathematics, and algorithms.

INTERESTS

Solving ambiguous technical challenges, Artificial Intelligence & Machine Learning, Distributed Architecture, Dancing, Creative arts, NSS volunteer.