

Manoj Reddy Ponagandla

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Summary

Senior Software Engineer with 5+ years of experience designing, building, and operating scalable cloud-native systems using Java, Spring Boot, TypeScript, and Python. Currently lead modernization of microservices and frontend platforms, embedding security, CI/CD, and resilience best practices while mentoring engineers and collaborating across global teams. Strong background in AWS, Kubernetes, RESTful APIs, and DevOps, with proven ability to improve system stability, performance, and maintainability in production environments.

Skills

Languages	Java, TypeScript, JavaScript, Python, C, C++
Frameworks & Architecture	Spring Boot, React, Next.js, Node.js, FastAPI, Microservices, RESTful API Design
Cloud & DevOps	AWS (S3, AppRunner, CloudWatch), Docker, Kubernetes, Jenkins, GitHub Actions, CI/CD
Databases	PostgreSQL, MySQL, MongoDB, SQL Server, Relational & NoSQL Data Modeling
Testing & Quality	JUnit 5, Mockito, Mocha, Jest, Automated Testing, TDD
Practices	Agile/Scrum, Secure SDLC, Code Reviews, System Design, Mentoring, Information Security

Experience

Charter Communications / Spectrum

Jul 2021 – Present

SOFTWARE ENGINEER 3 — JAVA, SPRING BOOT, REACT, AWS

- Led migration of legacy Java 8/Jersey microservices to Java 17 and Spring Boot 3.x, improving security posture and reducing operational defects.
- Designed and implemented scalable RESTful APIs and event-driven services, supporting high-throughput production workloads.
- Improved system robustness by enhancing error handling, logging, and monitoring using AWS CloudWatch and Kubernetes diagnostics.
- Collaborated with product and architecture teams to review user stories, define implementation approaches, and coordinate integration builds.
- Embedded CI/CD best practices using GitHub Actions and Jenkins, increasing deployment reliability and release velocity.
- Mentored junior engineers through code reviews, design discussions, and Agile ceremonies, strengthening team-wide engineering standards.

Projects

DESIROOMY (DESIROOMY.APP)

- Built a full-stack platform using Next.js and Supabase (PostgreSQL), implementing secure REST APIs and real-time data workflows.
- Integrated OAuth 2.0 authentication and automated CI/CD pipelines for reliable deployments and secure user management.
- Designed scalable data models and analytics tracking to support user growth and operational insights.

BARELY COMPLICATED

- Developed a FastAPI-based backend and React frontend, deploying containerized services on AWS AppRunner.
- Implemented secure API endpoints and database schemas for QR generation and analytics features.

SPONTANEOUSMEET

- Engineered a SwiftUI and Supabase-powered mobile platform with secure authentication and real-time data synchronization.
- Designed backend services with row-level security and optimized PostgreSQL queries for performance and stability.

Education

University of Missouri–St. Louis

Dec 2020

M.S. IN COMPUTER SCIENCE (ARTIFICIAL INTELLIGENCE)

Artificial Intelligence Graduate Certificate

Anurag Group of Institutions, Hyderabad, India

May 2018

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING

Certifications

Artificial Intelligence Graduate Certificate — University of Missouri–St. Louis

Machine Learning Certificate — eCornell, Cornell University (2024)

MedCerts Cybersecurity Analyst (CySA+) — Vulnerability Management & Threat Detection

Achievements

Judge — LA Hacks 2025, University of California, Los Angeles

Judge — MHacks 2025, University of Michigan, Ann Arbor