

# Manoj Reddy Ponagandla

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## Summary

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Software Engineer III with 5+ years of experience designing and operating cloud-native, distributed systems at scale. Currently leading backend and platform initiatives at Charter Communications, building resilient Spring Boot microservices deployed on AWS and Kubernetes with a strong focus on reliability, automation, and operational excellence. Experienced in reducing toil through CI/CD automation, infrastructure improvements, and observability enhancements while supporting production systems serving high-volume traffic.

## Skills

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**Languages** Java, Python, TypeScript, JavaScript, SQL

**Cloud & Infrastructure** AWS, Kubernetes, Docker, Azure (familiarity), Linux, Cloud-native architecture

**Distributed Systems** Microservices architecture, REST APIs, Event-driven systems, Kafka, High-availability design

**DevOps & Automation** CI/CD, GitHub Actions, Jenkins, Git, Containerization, Infrastructure automation, Monitoring and logging

**Databases** PostgreSQL, MySQL, MongoDB, Redis (familiarity), Relational and NoSQL modeling

**Practices** Agile, Code reviews, Incident response, Production support, Documentation-first communication, On-call support

## Experience

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### Charter Communications

Aug 2021 – Present

Missouri, USA

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

- Designed and operated cloud-native Spring Boot microservices deployed on AWS and Kubernetes, supporting high-volume production traffic with strong availability targets.
- Implemented CI/CD pipelines using GitHub Actions and Jenkins to automate build, test, and deployment workflows, reducing release cycle time and operational toil.
- Improved service reliability through proactive monitoring, structured logging, and performance tuning, reducing incident recurrence and improving MTTR.
- Collaborated with cross-functional teams to migrate legacy services to modern microservices architecture, enhancing scalability and fault isolation.
- Participated in production support and on-call rotations, performing root cause analysis and implementing long-term reliability fixes.
- Led code reviews and mentored junior engineers on platform best practices, clean architecture, and secure coding standards.

### CribMD

Jan 2020 – Jul 2021

Remote

SOFTWARE ENGINEER — JAVA, SPRING, DISTRIBUTED SYSTEMS

- Built and maintained backend services for a healthcare platform, designing secure REST APIs and scalable service integrations.
- Collaborated in a distributed remote team environment, contributing to asynchronous design discussions and documentation.

## Projects

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### DESIROOMY (DESIROOMY.APP)

- Built a cloud-native platform using Next.js and Supabase (PostgreSQL) with secure authentication and API-driven workflows.
- Designed scalable backend logic and automated deployment pipelines to support production workloads.
- Implemented analytics and monitoring to track user behavior and system performance.

### BUSINESS & OPERATORS PLATFORM

- Developed a full-stack management platform using Next.js and REST APIs to support operational workflows.
- Designed database schemas and backend services to ensure secure data handling and system scalability.
- Automated CI/CD workflows to streamline releases and reduce manual deployment effort.

### BARELY COMPLICATED TOOLS SUITE

- Built a suite of cloud-deployed web tools using React and FastAPI to automate everyday workflows.
- Containerized services and implemented automated deployments to improve operational consistency.
- Focused on reliability, maintainability, and low-toil architecture for sustainable platform growth.

## Education

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### 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

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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

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Judge — LA Hacks 2025, University of California, Los Angeles; MHacks 2025, University of Michigan, Ann Arbor