

# Jayraj Mulani

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## SUMMARY

Software Engineer with 4+ years of experience in Full Stack Software Development, Cloud Computing and DevOps.

## WORK EXPERIENCE

### Amazon.com, Inc. | Software Development Engineer II

Apr 2025 - Present

- Collaborated on introducing **Dark Mode** support for Kindle's color e-ink devices, improving accessibility and UX across Library and Annotation Notebook (AN) for millions of users.
- Improved CI/CD pipeline stability by ~40%, adding non-functional tests and reducing functional test run time by ~70 minutes.
- Migrated a legacy YNH (Your Notes and Highlights) service to native AWS, enhancing deployment reliability and reducing latency by eliminating runtime service calls for localized strings.
- Improved cold-open performance 3x by asynchronously processing page thumbnails, significantly reducing load time for AN.

### Goldman Sachs | Software Engineer, Associate

Nov 2024 - Apr 2025

- Engineered ETL pipelines to automate regulatory reporting calculations to ensure compliance, improving efficiency by 40%.
- Enhanced performance by reducing job runtime from 7 hours to ~2 hours by optimizing bottlenecks, while preserving accuracy.
- Documented 10,000+ lines of legacy risk analysis code for identifying gaps, enabling optimization and ensuring accuracy.

### North Carolina State University | Full Stack Developer

Sep 2022 - Nov 2024

- Upgraded **Angular**, **Spring Boot** to address vulnerabilities, significantly reducing the codebase size and clearing technical debt.
- Led the full stack development of RABapp in **Java Spring Boot**, **Angular**, **PostgreSQL**, **Keycloak**, **Docker**, **Localstack**.
- Maintained cloud infrastructure on **AWS** (ECS, RDS, Lambda, S3, SES) using **Terraform** IaC and engineered Github Actions based **CI/CD** pipeline, improving deployment speed and system reliability.
- Created AWS **Lambda** functions for image processing and email notifications, and implemented structured logging in **SLF4J**.
- Enhanced API performance by 5 times using **multithreading** and **CompletableFuture**-based **asynchronous** REST APIs.
- Conducted **usability tests** with state and company officials to improve **UX**, expanded reach to 27 US states (87% growth).

### Oracle | Software Developer 2 | Applications Engineer

Sep 2020 - Jun 2022

- Collaborated in design, development and deployment of **Terraform** based service to automate provisioning and decommissioning of **Oracle Cloud** resource stacks across compartment hierarchies. Tech Stack: **React.js**, Python **Django**.
- Automated critical patch update process to save over 100 man-hours per quarter utilizing Jira APIs and OCI Python SDK.
- Engaged with global teams to develop and enhance Oracle Learning Cloud, resolving 70+ critical bugs and issues for 45+ clients.
- Utilized Oracle **SQL** and **PL/SQL** to execute 15 data fixes on large scale databases with over 10M rows, ensuring data integrity.
- Ensured backwards compatibility by patching and back-porting over 20 bug fixes and enhancements, improving product stability.

## SKILLS

**Languages:** Java, Python, TypeScript, C++, JavaScript, SQL, C, HTML/CSS, Shell, Slang

**Frameworks & DBs:** Django, Flask, React, Spring-Boot, Nodejs, Angular, Redux, MySQL, MongoDB, PostgreSQL, REST, SecDB

**Tools & Technologies:** Linux, AWS, Terraform, Docker, Kubernetes, Ansible, Jenkins, OAuth2.0, Git, Grafana, GCP, Prometheus

**Key Competencies:** Distributed Systems, Cloud Architecture, SDLC, Agile, DevOps, Microservices, System Design

**Certifications:** Oracle Cloud Infrastructure - Architect Associate, Amazon Web Services - Cloud Practitioner

## EDUCATION

### North Carolina State University | Master of Computer Science

Aug 2022 - May 2024

Computer and Network Security, Software Engineering, Software Security, DevOps, Cloud Computing

GPA: 4.0/4.0

### Nirma University | Bachelor of Technology in Computer Engineering

Jul 2016 - Jun 2020

Computer Networks, Database Management Systems, Data Mining, Operating Systems, Algorithms

GPA: 9.14/10.0

## PROJECTS

### From Chaos to Control: Terraforming a New DevOps Era | DevOps | Academic Project

Aug 2023 - Dec 2023

- Orchestrated a **DevOps pipeline** utilizing Ansible, Docker, GitHub Actions, and Terraform for automated resource provisioning.
- Streamlined deployment of a NodeJS app on **Google Cloud Platform (GCP)**, ensuring a robust and scalable infrastructure.
- Implemented continuous system metrics monitoring with **Prometheus** and developed comprehensive dashboards using **Grafana**.

### Drone Fleet Management Solution | Cloud Architecture Design | Academic Project

Jan 2023 - May 2023

- Designed a secure, scalable cloud infrastructure for drone fleet management app on **AWS**, utilizing **DynamoDB**, **ELB**, **ECR**, and **EKS** to ensure high availability and reliability within a distributed environment.
- Conducted **Kubernetes** experiments on load balancing and auto-scaling across two AZs, optimizing resource allocation and improving system scalability by 35%.