Jayraj Mulani

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SUMMARY

Software Engineer with **3+** years of experience in Full Stack Software Development, Cloud Computing and DevOps.

WORK EXPERIENCE

The Machado Lab, NCSU | *Full Stack Developer*   Jun 2024 - Present
- 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**.

North Carolina State University | *Graduate Research Assistant | Software Engineer*   Sep 2022 - May 2024
- Conducted **usability tests** with state and company officials to improve UX, expanded reach to **27 US states** (87% growth).
- Developed pandas and openpyxl based **Python** scripts to automate file and data processing, reducing manual efforts by **50%**.
- Leveraged **Scrum** methodology to deliver robust production-ready code & reduced **40%** bugs through rigorous **code reviews**.
- Improved RABapp API performance **5x** by leveraging **multithreading** and CompletableFuture-based asynchronous REST APIs.
- Managed recruitment by redesigning coding challenges, screening applicants, conducting interviews and onboarding new hires.

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**.**
- Demonstrated leadership and collaboration skills by leading **4 projects**, mentoring a team of 3 and conducting interviews.
- Engaged with global teams to develop and enhance Oracle Learning Cloud, resolving **70+** critical bugs for over **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.

Oracle | *Project Intern*   Jan 2020 - Jun 2020
- Developed a Python tool for synchronizing large server archive files (up to **50 GB**) with OCI Object Storage, ensuring disaster recovery and automating backup processes.
- Implemented asynchronous solution to manage & track cloud resource allocation processes using Jira APIs, Django & React.js.
- Applied Critical Patch Updates on **7** clustered **Linux** environments to ensure **enhanced security** with minimum downtime.

Tata Consultancy Services | *Summer Intern*   May 2019 - Jul 2019
- Reduced manual testing time **by 30%** developing semi-automated API testing tool API Scoreboard using Angular, Spring Boot.
- Deployed API Scoreboard on Amazon Web Services by leveraging services like **Elastic Beanstalk, RDS, S3 and EC2**.

SKILLS

Languages:	Java, Python, TypeScript, JavaScript, SQL, C/C++, HTML/CSS, Shell
Frameworks & DBs:	Django, Flask, React, Spring-Boot, Nodejs, Angular, Redux, MySQL, MongoDB, PostgreSQL, REST
Tools & Technologies:	Linux, Terraform, Docker, Kubernetes, Ansible, Jenkins, OAuth2.0, Github, Jira, Keycloak, Agile, GCP
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.

JobTrackr⌀ | *Software Engineering | Academic Project*   Sep 2022 - Dec 2022
- Automated end-to-end deployment on AWS EC2 by engineering a **CI/CD** pipeline using **Github Actions, Ansible and Jenkins**.
- Accelerated release cycles by implementing **Agile** practices and enhanced **scalability** by deploying backend services on AWS**.**

ERP System⌀ | *Raahee Multipack Pvt. Ltd. | Freelance Project*   Aug 2021 - Mar 2022
- Designed and implemented a fully functional ERP app in React.js and Python Flask for a packaging manufacturing company.
- Deployed the app on OCI and improved operational efficiency by **40%,** supporting **120** employees and meeting customer needs.