Sai Medhini Reddy Maryada

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EXPERIENCE

Software Development Engineer, Amazon (AWS), Seattle, WA   Oct 2022 – Present

- Core contributor to **OpenSearch**, an open-source search and analytics engine. Implemented major features and resolved security issues in multi-language client libraries, adding **86,400+ lines** of secure, scalable code.
- Managed end-to-end releases across open-source projects, AWS services, and beta customer environments, building **CI/CD pipelines** for efficient build, test, and deployment.
- Automated API generation in **Python** and **PHP** clients, expanding supported APIs from 142 to 481 and increasing test coverage to 86% using YAML test runners and **GitHub Actions** CI/CD pipelines for regression-free releases.
- Consolidated high-level and low-level Python client libraries into a unified codebase, migrating 138 APIs, workflows, and 380+ tests with zero customer impact, reducing maintenance workload by **40%**.
- Designed and delivered new features in the OpenSearch Flow Framework Dashboards with **TypeScript** and **React.js**, driving **3x customer adoption** in five weeks, while authoring 92% of **Jest** and **Cypress** tests to ensure quality.
- Modernized the OpenSearch documentation website by hosting versioned HTML on **S3**, serving content via **API Gateway/Lambda**, and enabling dynamic HTML rendering for multiple releases.
- Optimized OpenSearch python client performance by creating **benchmarking** metrics to detect bottlenecks and optimize request pipelines, reducing client processing time by **23**%.
- Configured and optimized **request throttling** to limit concurrent requests, mitigating high-traffic load and preventing service outages, resulting in a 96% reduction in disruptions during peak periods.
- Architected **Go microservices** and custom handlers for internal automation, leveraging **Docker** for containerization, **EKS** for orchestration, and AWS Lambda for event-driven execution, improving deployment speed and reducing manual intervention.
- Resolved high-impact production issues during **on-call** rotations by analyzing **CloudWatch** logs, collaborating with engineering teams, and delivering timely fixes to enhance system reliability.

Systems Engineer, Tata Consultancy Services, India   Mar 2021 – Aug 2021

- Developed **Java** and **Spring Boot** backend services for an employee access management system, integrating **DynamoDB** and **MySQL**. Built APIs to manage user accounts, automated provisioning/deactivation, added audit logging, and optimized queries to cut data retrieval times by 32%, improving system reliability.
- Built an HR analytics platform for a major FMCG client with real-time sentiment tracking, REST API integrations, and role-based dashboards using **Power Apps**, **Dataverse**, and **Power Automate**, streamlining reporting and reducing manual effort.

Analytics Intern, Quantium Analytics Pvt Ltd, India   Jan 2020 – Jul 2020

- Migrated analytics pipelines from **Teradata/Scala** to **Snowflake/PySpark**, reducing compute costs by **25%** and accelerating delivery of insights for retail clients.
- Designed scalable **ETL pipelines** in PySpark, automating data cleaning and validation with **Python, R, and SQL**. Enhanced reporting with **Excel VBA automation**, reducing manual effort and improving accuracy.
- Built **Tableau dashboards** to analyze pricing trends and consumer behavior, helping optimize shelf space and pricing strategies for FMCG clients.
- Contributed to integrating **Apache Kafka** for real-time data streaming between analytics modules, improving scalability and reliability of pipelines.

TECHNICAL SKILLS

Languages: Java, Python, Go, TypeScript, JavaScript, Node.js, C, PHP, Bash, HTML, CSS
Backend & Frameworks: Spring Boot, PySpark, JUnit, Mockito
Frontend & Testing: React.js, Redux, Jest, Cypress, Figma
Cloud & Infrastructure: AWS (EC2, Lambda, S3, DynamoDB, VPC, API Gateway, CloudFormation, CloudWatch, IAM, CDK, OpenSearch, SageMaker, Bedrock), Snowflake, PostgreSQL, MySQL
DevOps & CI/CD: Docker, Kubernetes, GitHub (Actions), Jenkins, Terraform, Kafka, Gradle
APIs & Code Generation: OpenAPI, Swagger, Smithy, YAML, JSON, XML
Data & Visualization: Tableau, Power BI, QuickSight, Excel (VBA)
Tools & Methodologies: Agile/Scrum, Maven, Prometheus, Grafana, JIRA

EDUCATION

University at Buffalo, The State University of New York   Aug 2021 – Aug 2022
Master of Science in Engineering Science – Data Science

Jawaharlal Nehru Technological University Hyderabad   Aug 2016 – Sep 2020
Bachelor of Technology in Mechanical Engineering