

Ronak Sankaranarayanan

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Summary:

Software Engineer with 3+ years of Experience in building scalable, fault-tolerant systems with expertise in Java, Golang, React.js, and AWS. Skilled in microservices, cloud automation, and CI/CD pipelines, delivering high-quality, production-ready solutions.

PROFESSIONAL EXPERIENCE:

Software Engineer - Capital One **July 2022 - Present**
McLean, VA

Part of a platform team managing microservices on ECS Fargate, processing customer data through transformation and downstream call, integrating with AWS services like S3 and DynamoDB. Also developed internal tools for visualization of workflows and API calls.

- Developed thread-safe data access components in Java using AtomicReference and ConcurrentHashMap to enable consistent, concurrent state manipulation across multiple threads within Spring Boot microservices.
- Implemented a fault-tolerant Java-based AWS Lambda function triggered by SQS to perform CRUD operations on DynamoDB when ECS services fail, ensuring 100% data persistence and improving system reliability by 40% during failure recovery scenarios.
- Designed a secure React.js-based UI to interface with AWS S3, enabling file content visualization and workflow navigation using tokenized access.
- Automated GitHub-to-S3 synchronization using Jenkins pipelines across dev, QA, and prod environments, improving deployment reliability while minimizing storage costs.
- Validated regional failover using Route 53 by routing traffic to isolated ECS containers, improving service availability under outage conditions.
- De-Escalated a sev 4 incident in production environment with IAM policy update using roll forward deployment, reducing the error rate from 86% to under ~0.5% and documented the Root Cause Analysis
- Deployed CloudWatch alarms and Splunk dashboards for real-time monitoring and production support, that reduced average debugging time by ~5 hours per sprint.

Tools & Technologies: Java, Spring Boot, Golang, Python, React.js, Jenkins, Cucumber (GoDog, Behave), GitHub APIs, AWS (S3, DynamoDB, CloudWatch, SQS, Lambda, ECS Fargate, Route 53), Splunk, Jira, PagerDuty

Software Engineer - Market Simplified India Ltd **June 2019 - July 2020**
Chennai, India

Developed a cross-platform trading app (React Native) with 100k+ downloads across [iOS](#) and [Android](#), supporting real-time data and secure transactions.

- Designed and maintained 10+ responsive screens using React Native, achieving consistent UX across 25+ devices and contributing to a 4+ app rating.
- Implemented seamless navigation architecture using React Router, integrating Redux to maintain global state across 20+ user interactions per session, reducing app-navigation crash rates by 30%.
- Integrated 8+ APIs with secure token handling and dynamic JSON parsing to enable real-time updates, reducing manual refresh requirements by 90%.
- Built a real-time data sync module using a custom Pub/Sub pattern system to subscribe to live stock updates, unmarshalled incoming data streams, and updated UI instantly for 10,000+ DAUs, improving trading insights latency by 45%.
- Optimized app performance by migrating to Hermes engine, cutting app size by 60% (87MB → 35MB) and cold start time by ~60%.

Tools & Technologies: React Native, React.js, Redux, React Router, JavaScript, Hermes, Azure Pipelines, Jira

PROJECTS:

Personal Expense Tracker (Angular + GraphQL)

- Developed a modular UI with **Angular** and integrated it with a **Spring Boot** backend to visualize financial data, improving user insights by **80%** through interactive dashboards.
- Redesigned static JSON endpoints into dynamic **Spring Boot REST APIs** backed by **Spring Data JPA**, improving query flexibility and reducing transaction response times by **40%**.

Real-Time Inventory Management System (Google Cloud)

- Built backend microservices using Google Cloud Functions and Firestore, ensuring 99.9% real-time sync accuracy across devices.
- Leveraged Google Pub/Sub for instant stock updates, reducing inventory update latency to under 250 ms and improving user response efficiency by 30%.

EDUCATION:

Master's Degree in Data Science - Worcester Polytechnic Institute (*Worcester, MA*) **Aug 2020 - May 2022**

Bachelor's in Information Technology - Anna University (*Chennai, India*) **Aug 2015 - May 2019**

SKILLS:

Programming:	Java, JavaScript, Spring Boot, Spring Data JPA, Go (Golang), Python, Bash Scripting, React.js, React-Native, Redux, Angular NPM, REST, GraphQL, OAuth, JWT, SQL, NoSQL Databases (DynamoDB), Docker, Microservices
Cloud & DevOps:	AWS (S3, DynamoDB, ALB, Route53, Fargate, CloudWatch, IAM), Azure (Functions, CosmosDB, EventHub, CI/CD), Google(Cloud functions, Firestore, Pub/Sub), Jenkins
Testing Monitoring:	Cucumber (Java, GoDog, Behave), Junit 5, Splunk, PagerDuty, Gherkin