Nikhil Sagar Miriyala

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PROFESSIONAL EXPERIENCE

Senior Member of Technical Staff: OCI, Oracle America Inc., Austin, TX Nov 2024 – Present

Triage & Repair Service (TRS)

- Actively contributing to a business-critical repair platform named Triage & Repair Service (TRS), which orchestrates the automated triage and repair of compute infrastructure within OCI, with an availability target of >97.5%.
- Designed and led a blue-green rules deployment model with capability-based compatibility checks across ~100 availability domains, eliminating a deploy window that exposed up to ~10,000 repair cases per release.
- Optimized the RMA workflow for non-repairable NVIDIA GB200/GB300 hosts, adding pre-wipe repair actions that raised first-attempt sanitization success by 15% and automating wipe-evidence interpretation into data center tickets to prevent unnecessary component destruction; building day-1 RMA support for newly onboarded GPU platforms.
- Built automated reporting pipelines within TRS, using AI agents and MCP server's underneath, that extracts data from relational databases, caching systems and ticketing platforms to create dashboards, increasing repair traction by 50%.

Oracle Ticketing Systems (OTS)

- Enhanced the disaster recovery procedures and optimized end-to-end performance of tier-0 product named Oracle Ticketing Systems (OTS), which provides an incident management and customer support platform within OCI across multiple regions.
- Developed a chunked, checksum-verified attachment upload API on top of object storage multipart upload, raising capacity from 10MB to 1GB, with 200MB enabled in production.

Senior Software Engineer: Visa Inc., Austin, TX Jan 2023 – Nov 2024

- Worked with a highly agile development team under Risk Management, focused on providing RaaS (Risk as a Service) products that enable fraud assessment of account-to-account transactions.
- Design, develop and manage GoLang based applications, serving real time transactional traffic up to 1000TPS, while adhering to the SLA requirements of 99.999% availability and 99.95% latency (<=20ms).
- Root-caused go-live blockers through profiling and load testing: identified & resolved a Redis connection setting forcing a TLS handshake per lookup, and concurrent map writes crashing the orchestration engine, restoring sub-20ms latency at p99.95.
- Enhanced the monitoring and alerting process of the applications using Prometheus metrics, Grafana dashboards and alarms.
- Migrated RaaS to AWS and re-architected it to run in confidential compute environments, integrating EC2, Nitro Enclaves, ELB, Kinesis Firehose, Lambda, API Gateway, ElastiCache and CodeDeploy.

Software Engineer: Fidelity Investments, Bangalore, India Aug 2019 – Jul 2021

- Migrated a business-critical workflow from a legacy file-based batch process to an event driven Kafka based system, which resulted in reducing the processing time from 10 mins/cycle to 5 mins/cycle.
- Built and enhanced 10+ Java Spring Boot services covering new features, library upgrades and production fixes.
- Refactored and improved code quality by mitigating the sonar issues and increasing test coverage to more than 80%.

EDUCATION

MS in Computer Science Aug 2021 – Dec 2022
Arizona State University, Tempe, AZ 4.0 GPA
Coursework: Statistical Machine Learning, Deep Learning, Mobile Computing, Software Security, Distributed Database Systems

Bachelor of Technology in Electronics and Communications Engineering Jul 2015 – May 2019
Visvesvaraya National Institute of Technology, Nagpur, India 3.5 GPA
Coursework: Operating Systems, Computer Architecture and Organization, Data Structures and Algorithms

TECHNICAL SKILLS

Programming Languages: Java, Go, Python, JavaScript, TypeScript, C, C++, React, Angular6, HTML5, CSS, Android
AI Tools: Codex CLI, Agentic Workflows, MCP Servers
Databases: OracleSQL, MySQL, DynamoDB, PL/SQL
Frameworks & Tools: Apache Kafka, Workflow Engines, AWS, Terraform, Pandas, NumPy, Spring, SpringBoot, JUnit, Maven, Prometheus, Bosun, Splunk, Grafana, Git, Jenkins, Linux
Certifications: AWS Certified Developer – Associate