SARANG NAGPAL

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Summary

Results-oriented Software Engineer with experience building high-throughput systems in Go, leading resilience testing initiatives, and contributing to security-focused release cycles. Skilled in scalable architecture, cloud-native systems, and modern DevOps practices. Skilled in Java, ReactJS, and RESTful APIs. Adept at system design and implementing resilient architectures that handle millions of transactions seamlessly. Experienced in working within agile teams to deliver impactful, high-quality solutions.

Experience

Software Engineer
Visa Inc

April 2025 – Present
Bangalore, India

- Implemented a **token bucket–based rate limiter** in a high-performance **Go-based load generator**, enabling control of stress test throughput at **40K+ TPS**, improving test predictability and system observability.
- Contributed to **multiple production releases**, addressing critical **security vulnerabilities**, reducing CVE exposure across customer-facing services.
- Initiated and established foundational practices for **chaos engineering** in AI inference services, focusing on fault injection, latency simulation, resource exhaustion and stale context scenarios to improve model resilience.
- Collaborated cross-functionally to develop monitoring metrics and dashboards to measure impact of chaos tests and rate-limiting logic on AI model inferencing and

Software Development Engineer
Amazon

Jan 2024 - Mar 2025
Bangalore, India

- Collaborated in a team to implement Features in **Scalable Architecture** to optimize customer onboarding, reducing number of customers clicks by **50**%, improving overall issuance metrics by **8**% and reducing latency.
- Improved Payment Success Rate by **5**% by Implementing Strategies to improve resiliency of **UPI Payments** for more than **20 million** Customers
- Resolved Numerous Business papercuts and developer backlog queue items implementing **RESTful** APIs using **Java** and multiple AWS Components like **AWS Lambda, DynamoDB, SQS, SNS, etc.**
- Designed and developed systems solving business problems while upgrading the frontend framework to build interactive web pages for mobile from **JSP** to **ReactJs** with **Redux**.

Software Development Engineer Intern
Amazon

May 22 – July 22
Bangalore, India

- Built a back-end service in Spring Boot (Java) to test the resilience of Amazon Pay's core UPI service while working in an Agile Environment
- Achieved a 100% score in resilience metric for the core service by configuring stress tests in a custom stress testing framework

Skills

Programming Languages: Java, TypeScript, JavaScript, Python, C++, Go
Frameworks: ReactJS, Redux, Node.js, Express.js, Spring Boot, JSP, Kubernetes
Cloud Platforms & Tools: AWS (Lambda, S3, DynamoDB, API Gateway), RabbitMQ, Kafka, MongoDB
Backend Technologies: RESTful APIs, Microservices Architecture, Asynchronous Communication, MySQL
Machine Learning: TensorFlow, Deep Learning, Neural Networks
Additional Skills: System Design, Scalable Architecture, Agile Methodologies

Education

National Institute of Technology, Warangal (NITW)

2019 - 2023

Bachelor's of Technology, Electronics and Communication Engineering

Warangal, India