# Shreyas Shankar

New Jersey, USA | 857-867-9265 | mail.shreyasgs@gmail.com | shreyasgs.com

## PROFESSIONAL SUMMARY

Backend and Distributed Systems Engineer with 4+ years of experience building large-scale cloud platforms at Amazon AWS (ECR, S3). Specialized in high-throughput, fault-tolerant systems spanning control-plane automation, security infrastructure, and event-driven architectures. Proven track record of improving reliability, reducing operational overhead, and scaling production services.

## TECHNICAL SKILLS

**Languages**: Java, Python, Go, Rust, C++, TypeScript, SQL (queries, tuning, indexing)

**Distributed Systems**: Event-driven architecture, async workflows, microservices, replication, quorum systems, fault tolerance, retries, idempotency, REST/gRPC API design

**Cloud & DevOps**: AWS, CI/CD, Infrastructure as Code (CloudFormation, CDK, Terraform), Docker, Kubernetes

**Data & Security**: Envelope encryption, credential management, audit logging, monitoring & observability, structured logging

## PROFESSIONAL EXPERIENCE

**Amazon Web Services (AWS) — New York, USA**

**Software Development Engineer — Elastic Container Registry (ECR) | Feb 2025 – Present**

- Architected and built a unified ECR async execution platform by integrating new AWS services and internal tooling to support image signing, replication, and scanning workflows, reducing new feature onboarding time by **75%** while sustaining **1M+ TPS** throughput.
- Designed and onboarded fairness-aware scheduling and adaptive retry mechanisms to handle burst traffic and evolving workload patterns under high concurrency.
- Implemented identity-based credential delegation using Forward Access Sessions and envelope encryption, enforcing least-privilege authorization for ECR Async actions by validating caller permissions before execution, preventing unauthorized operations while maintaining full auditability.
- Designed and implemented **a** deduplication and idempotency control mechanism for event-driven workflows, preventing redundant jobs triggered by overlapping image events, ensuring only a single execution per logical operation and reducing unnecessary compute and processing overhead.

**Software Development Engineer — Simple Storage Service (S3) | Jul 2021 – Feb 2025**

- Designed and implemented control-plane recovery workflows to detect degraded quorums and automatically trigger host replacement using lightweight deep health checks optimized for S3 request-path latency, eliminating **100%** of manual operational effort and reducing incident detection time from **hours to under 3 minutes.**
- Automated deployment workload assignment and region build pipelines, saving **5+ engineering hours per deployment cycle** and **enabling** continuous 24-hour patching cadence.

**Amazon.com Inc — California, USA**

**Software Development Engineer Intern | Jun 2020 – Sep 2020**

- Built real-time network monitoring dashboard for AWS data centers backed by an event-driven aggregation pipeline using DynamoDB Streams and Lambda, improving data retrieval performance by **60%**, enabling visualization across **256k+** devices, and reducing operational debugging time by **30%.**

## EDUCATION

MS Computer Science — Northeastern University, Boston, MA | 2021