Ahmed Massoud

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Software engineer and squad lead building distributed, multi-tenant execution platforms that route and serve production traffic at fleet scale. I own systems end to end — request routing and traffic isolation across AWS regions, autoscaling and orchestration of multi-tenant compute, and agentic AI automation that keeps mission-critical operations reliable at a fraction of the manual effort.

Experience

Amazon Web Services (AWS) — ***Berlin, Germany***
Software Development Engineer II (CodeBuild & Amazon Q Developer) — ***Sept 2024 – Present***

- Led a 6-engineer squad (Jan 2026 – Present), setting half-year technical goals and driving an operational-excellence program that cut incoming tickets from ∼**100 to 15 per week** on a legacy service via systematic root-cause elimination and agent-automated daily analysis and follow-ups.
- Cut average production-investigation effort from **5 hours to 10 minutes** across a **12+ microservice**, **1.5M-line** (Scala, Go, TypeScript) execution platform by centralizing telemetry into a single diagnostic surface and building an AI agent that triages tickets, correlates customer communications with internal logs and code, and runs full investigations autonomously.
- Delivering a **4x reduction in P99 startup latency** for the platform's compute-instance fleet — optimizing instance provisioning and fleet state management, and validating workloads at scale across instances.
- Owned the multi-region rollout of **Diagnose with Amazon Q** to every AWS commercial region, designing region-agnostic deployments, cross-region traffic isolation, and a scalable routing layer that absorbed a **68% increase in traffic** with no availability regressions.
- Designed IAM permission-resolution workflows backed by automated formal reasoning to diagnose and remediate authorization failures, improving resolution quality for **20% of customer errors**.
- Mentored engineers to deliver major initiatives end to end — a **140+ pipeline** CI/CD revamp, **IPv6** migration, system-wide alarm refactor, and features unblocking a major enterprise customer — growing **two engineers to SDE II promotions**.

Software Development Engineer (Fault Injection Service) — ***Feb 2023 – Sept 2024***

- Designed and built distributed load-testing infrastructure that validated API scalability limits and quota boundaries across services, surfacing breaking points before they reached production.
- Built automated chaos-testing and fault-injection workflows enabling weekly resilience validation and safe, controlled failure simulations against production-scale systems.

NovaLabs — ***Doha, Qatar***
Full Stack Developer — ***Sept 2021 – Nov 2022***

- Designed idempotent, transactional payment workflows and multi-tenant data isolation (context-aware migrations, cross-tenant consistency guarantees) for a production **E-commerce SaaS** platform.

QuickByte — ***Doha, Qatar***
Software Developer — ***Dec 2020 – Aug 2021***

- Built backend services, CI/CD pipelines, and real-time communication features for a production FoodTech platform using Docker and GitHub Actions.

Skills

Languages: Python, Go, Scala, TypeScript, Kotlin, Java, SQL, Bash.
Distributed Systems: Request routing, load balancing & traffic management, multi-region / fleet orchestration, autoscaling, multi-tenant execution platforms; AWS (EC2, ECS, Lambda, IAM, DynamoDB, CDK), Docker, Linux, CI/CD.
AI & Agents: Agentic investigation & operations automation, LLM agent skills & workflows (Kiro, Amazon Q).
Reliability & Security: Observability, chaos engineering, fault injection, scalability & load testing, production on-call, delegated authorization & formal reasoning.

Education

Qatar University — **Doha, Qatar**
B.S. Computer Science — *August 2017 – May 2021*
Awards: Google Hash Code – 1st place in Qatar (2020) — Best Senior Project, Computer Science (2021)