

Arsalan Ahmad Sheikh

Full Stack Engineer | AI & Automation | Marketplaces | Platform Engineering
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B.Tech, IIT Hyderabad

SUMMARY

Product-minded engineer who builds platforms end to end across backend systems, customer-facing products, AI agents, integrations and deployment automation. At Qudelta, architected hospitality, ecommerce and conversational-AI products from initial requirements through production deployment. Strong in Python, FastAPI, React/Next.js, PostgreSQL, APIs, event-driven systems, AWS and automation, with a bias toward eliminating manual work and shipping usable systems quickly.

EDUCATION

- **Indian Institute of Technology Hyderabad** Hyderabad, IN
B.Tech in Electrical Engineering and Engineering Science

EXPERIENCE

- **Qudelta Studios** Remote
Lead Engineer & Software Architect – Part-time *May 2025 – September 2026*
 - **Hospitality Marketplace – GoGurez:** Built a hospitality platform for Gurez Valley covering property discovery, inventory, reservations, Razorpay payments, configurable cancellation/refund rules, payouts and separate customer, merchant and admin workflows. Built customer-facing Next.js marketplace, merchant PWA and administration system around a FastAPI/PostgreSQL backend.
 - **Reservation and Operational Integrations:** Designed booking state transitions, webhook-driven payments, inventory synchronization and iCal calendar sync, plus provider abstractions that allow payment, payout, SMS and search providers to be changed without rewriting business logic. GoGurez launched in 2026 and is receiving live traffic.
 - **Conversational AI Automation:** Built a multi-agent booking and discovery platform using Gemini and Google ADK with 15+ live database-backed tools. Implemented conversation state, structured outputs, multi-step tool execution, streaming, grounding, retries and automated merchant onboarding from unstructured websites.
 - **Communication Ecosystem:** Automated Twilio ISV sub-account lifecycle, Meta WhatsApp Business onboarding, Chatwoot provisioning, SSO and webhook routing, turning previously manual communication-platform setup into an automated workflow.
 - **PanunStore – Multi-Tenant Commerce Platform:** Architected a white-label commerce platform covering products, variants, inventory, orders, payments, administration, analytics, customer segments, cart recovery, advertising integrations, custom storefronts and tenant-aware feature entitlements.
 - **AI-Accessible Commerce Operations:** Built MCP/OAuth infrastructure exposing commerce operations to AI agents, including single-entity operations, customer segmentation, cart-recovery workflows, capability discovery and controlled bulk/change-set operations with plan-aware tool gating.
 - **Zero-Touch Infrastructure:** Built a Python provisioning engine automating tenant creation across containers, Nginx, SSL certificates, databases and migrations, object storage, DNS and frontend deployment. Built the FastAPI backend, Next.js storefront and React administration platform around the same tenant model.
- **Airnguru** Remote
Backend Developer – Contract *April 2024 – June 2025*
 - **Automation at Scale:** Replaced a monolithic batch workflow with distributed AWS Lambda workers, reducing processing time from 170s to 40s. Added asynchronous routing, partitioned execution and SQS dead-letter retries to reach 99.9 percent pipeline success.
 - **High-Volume Data:** Built ingestion handling 500K+ rows/day with validation and backpressure, optimized Aurora queries by 45 percent, and redesigned a BigQuery process to reduce memory usage from 10GB to 800MB.
 - **Cloud Platform Ownership:** Worked across AWS infrastructure, authentication, caching, security and observability using Lambda, DynamoDB, Aurora, Redis, Cognito, CloudFormation, WAF, CloudWatch, EC2 and S3. Received the Passion for Excellence award for exceptional performance.
- **Kore.ai** Hyderabad, IN
Associate Software Engineer – Full-time *June 2023 – April 2024*

- **Real-Time Infrastructure:** Built part of a production streaming transcription pipeline that reduced end-to-end latency from roughly 10 seconds to under 1 second using asynchronous buffering, flow control and WebSocket management.
- **Third-Party Integrations:** Built FastAPI and Express middleware connecting enterprise systems including Salesforce, Genesys, Talkdesk and NICE CXone, with retry and circuit-breaker handling for unreliable dependencies.

EARLIER ENGINEERING & LEADERSHIP

- **Office of Career Services, IIT Hyderabad** Hyderabad, IN
Backend Developer → Technology Team Lead – Part-time *May 2021 – March 2023*
 - **Ownership and Leadership:** Built and maintained workflows for IIT Hyderabad's placement platform, later leading technical work and releases while mentoring junior developers and reviewing implementation.
- **Mable.ai, SuperPe & Samsung R&D Institute India** Remote / Bengaluru, IN
Software Engineering Internships *May 2022 – May 2023*
 - **Early Engineering Experience:** Worked across REST APIs, Django/MongoDB services, automation, data-integrity systems, metrics pipelines and CI-integrated developer tooling.

HONORS

- **Airnguru – Passion for Excellence Award:** Presented by the CEO, COO and CTO in recognition of exceptional performance. February 2025.
- **Kore.ai – Shining Start & Spotlight Awards:** Recognized for engineering impact during tenure.

TECHNICAL SKILLS

- **Product Engineering:** Python, FastAPI, Node.js, TypeScript, React, Next.js, PostgreSQL, MySQL, MongoDB, REST APIs, WebSockets
- **AI & Automation:** Gemini, Google ADK, LLM APIs, agentic workflows, tool calling, MCP, RAG, structured outputs, workflow automation
- **Platforms & Integrations:** Twilio, Meta WhatsApp Business, Razorpay, Chatwoot, webhooks, OAuth, iCal, third-party API integrations
- **Distributed Systems:** RabbitMQ, SQS, Redis, event-driven architecture, asynchronous processing, retries, DLQs, circuit breakers
- **Infrastructure:** AWS, GCP, Docker, Cloudflare Workers/R2, GitHub Actions, Nginx, Certbot, Linux, CI/CD
- **Engineering Leadership:** Architecture, product scoping, technical decision-making, client collaboration, code review, intern mentoring