

Muhammad Ashar

Product Engineer · Backend Systems · Node.js · TypeScript · Flutter · AWS

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PROFESSIONAL SUMMARY

Backend-focused Product Engineer with **3+ years** of experience shipping production systems end-to-end across backend services, mobile applications, and cloud infrastructure. Experienced building reliability-critical systems involving payments, healthcare compliance, real-time communication, and AI integrations with strong emphasis on ownership, product thinking, and shipping outcomes.

EXPERIENCE

Product Engineer / Sole Technical Owner

October 2025 – Present

AtPulse (Healthcare Technology)

Karachi, Pakistan

- Sole technical owner of a clinical platform serving a **large patient population** across multiple hospital sites; designed and deployed the full system from API to mobile to cloud infrastructure.
- Architected **HIPAA-compliant RESTful API** in Node.js/Express with JWT-based RBAC managing patients, doctors, and administrators; full audit logging for regulatory compliance.
- Deployed and maintained **AWS infrastructure (EC2, S3)** with Nginx, Docker containerization, and GitHub Actions CI/CD achieving zero-downtime production releases; configured dev/prod environment separation across AWS and Supabase.
- Built **real-time WebSocket layer** (Socket.io) handling multiple concurrent connections; integrated LLM-powered STT/TTS APIs and clinical AI scoring modules with Gemini narrative generation.

Software Engineer

February 2025 – October 2025

Progzil Technologies

Karachi, Pakistan

- Architected and delivered a multi-module EdTech platform (EpsomCourses, EpsomCoach, EpsomTalent, EpsomAdmissions) with a shared **backend-driven permission system** and unified data layer across modules.
- Built **Stripe Connect integration** end-to-end: milestone-based payments, webhook processing, payout flows, failure logic handling, and a wallet system.
- Built and deployed **Node.js/TypeScript backends** for 2 production applications with independent CI/CD pipelines, Redis caching, and 99.5% uptime.

Full-Stack Developer

June 2023 – October 2024

Emergen

Karachi, Pakistan

- Developed **ERP and POS systems** with offline-first Flutter frontends and Node.js backends, supporting complex business workflows, inventory management, and real-time data sync.
- Refactored legacy codebase applying **Clean Architecture and SOLID principles** reducing crash reports by 60% and accelerating feature delivery by 35% over 6 months.

TECHNICAL SKILLS

Backend & Languages: TypeScript, JavaScript, Node.js, RESTful API Design, GraphQL, WebSocket (Socket.io)

Mobile: Flutter, Mobile (Android/iOS)

Databases: PostgreSQL, MongoDB, MySQL, Redis, Query Optimization, Sequelize, Mongoose

Cloud & DevOps: AWS (EC2, S3, Lambda, RDS, CloudWatch), Docker, GitHub Actions, CI/CD, Nginx, PM2

Integrations & APIs: Stripe Connect, Google Maps API, LLM/AI APIs, FCM, Webhooks, Third-party SDKs

Architecture: Microservices, Event-Driven Systems, Clean Architecture, SOLID Principles, RBAC, GDPR/HIPAA Compliance

EDUCATION

Bachelor of Science in Computer Science

Sep. 2021 – July 2025

DHA Suffa University

Karachi, Pakistan

CGPA: **3.4/4.0** (First Class) — Dean's List (3 semesters)

ACHIEVEMENTS

1st Place · Lab Lab AI Global Hackathon (2024): Built AI-powered system integrating Gemini API, competing against 500+ developers from 30+ countries.

1st Place · Devathon Summit Karachi (2024): Won app development competition among 100+ professional developers under 24-hour constraint.