Hammad Aslam

Senior Software Engineer | Full-Stack, Mobile Architect & AI Systems

Lahore, Pakistan · Open to Remote & Relocation (Saudi Arabia, UAE, EU)

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Professional Summary

Senior Software Engineer, Mobile Architect & Full-Stack Developer with 3+ years of experience architecting and shipping **production enterprise platforms, web applications, and live cross-platform mobile apps** across the USA, Canada, Malaysia, the GCC, and Pakistan. Proven record delivering full-lifecycle systems spanning reactive web portals (**Next.js 16, React.js, TypeScript**), high-concurrency asynchronous backends (**Python FastAPI, Node.js, PostgreSQL**), and high-performance mobile apps (**React Native New Architecture: Fabric, TurboModules**). Proficient in high-throughput **Real-Time Systems** (WebSockets, WebRTC calling, Socket.io, Google Maps telemetry), automated KYC verification, secure Payment Integration (Stripe, JazzCash), and **Conversational AI / On-Device ML integrations** (LLM APIs, Groq, OpenAI, contextual RAG, OCR vision). Expert in **Performance Optimization, CI/CD, and Unit/Integration Testing**, accelerating delivery velocity by 2.5x with rigorous code quality.

Technical Skills

Core Competencies: Mobile Architect, Cross-Platform Mobile Developer, Real-Time Systems, Performance Optimization, Conversational AI, On-Device ML, KYC Verification, Payment Integration, CI/CD, Unit/Integration Testing
AI & Intelligent Systems: LLM API Integration (OpenAI GPT-4o, Groq, Claude), In-App Conversational AI Agents, Contextual RAG Pipelines, Speech-to-Text (Whisper), Twilio Voice, On-Device OCR KYC (Vision/Tesseract), Prompt Engineering, Automated Data Workflows
Mobile Engineering: React Native (CLI & Expo 57), New Architecture (Fabric, TurboModules, JSI, Bridgeless Mode), Reanimated 3/4, Offline-First Architecture (WatermelonDB, SQLite), React Navigation 7, FlashList, Flipper, Hermes Engine
Frontend Architecture: Next.js 16 (App Router, Server Components), React.js, TypeScript, JavaScript (ES6+), TailwindCSS, Shadcn UI, Zustand, Redux Toolkit, TanStack Query, Highcharts, Vite, HTML5/CSS3
Backend & Cloud: Python, FastAPI (Async/Await), Node.js, Express.js, RESTful API Architecture, WebSockets, Socket.io, Microservices, JWT/OAuth2 Auth, Celery / Background Workers, Vercel, Supabase Cloud
Databases & Storage: PostgreSQL, Supabase, SQLAlchemy ORM, Alembic Migrations, Firebase Firestore, MongoDB, SQLite, Redis Caching, DB Indexing, Connection Pooling
Hardware & Systems: Electron Desktop POS Software, POS Thermal Receipt Printing Protocols, Biometrics (Keychain, FaceID/Fingerprint), Geolocation Telemetry, Google Maps SDK
DevOps & Testing: CI/CD (Fastlane, GitHub Actions), Jest Unit/Integration Testing, Docker, Docker Compose, Git, GitHub/GitLab, Xcode, Android Studio, Gradle, Google Play Console, Apple App Store Connect, Postman

Work Experience

Software Engineer (Full-Stack, Mobile Architect & AI Lead) **Jan 2026 – Present**
Asper InfoTech *Hasilpur, Pakistan*

- Spearheaded development of the **SM-CRM Suite**—an enterprise dealership ERP integrating a **Next.js 16** admin web portal, **React Native** mobile app (v0.88), and high-throughput **FastAPI** backend with PostgreSQL for 30+ showroom operations.
- Built the **Start Office / ICMS** ecosystem supporting 50+ concurrent enterprise users across 5 corporate branches with an in-app **Conversational AI Assistant** (`useAIAgent`), peer-to-peer **WebRTC video/voice meetings**, and **Socket.io** instant chat.
- Architected an autonomous **AI WhatsApp Voice & Text Agent Platform** leveraging FastAPI, Groq LLM, Twilio, and Supabase, routing 3,000+ daily voice notes and text inquiries with sub-second response times.
- Led mobile telemetry for **ApniRide** on-demand ride ecosystem, deploying sub-500ms driver tracking and background GPS via **Google Maps API**.
- Structured normalized PostgreSQL schemas and Alembic migrations, cutting analytical CRM query times by 42% while producing dynamic Excel/PDF exports in under 2s.

Senior Software Engineer (Mobile & Web) **Jun 2025 – Dec 2025**
Signature Intech *Lahore, Pakistan*

- Co-architected **KarayDaar** and **KarayDaar Agency**—a multi-platform rental marketplace serving 1,000+ active listings and 15,000+ monthly visits on Web, Google Play Store (5.0 Rating), and Apple App Store.
- Integrated automated tenant-landlord KYC verification and encrypted **JazzCash payment webhooks**, achieving 100% transaction reconciliation on financial rental deposits.
- Conducted comprehensive **Performance Optimization**, migrating heavy list renders to **FlashList** and memoized components, sustaining smooth 60 FPS transitions across low-end Android devices.

Freelance Software Engineer **Feb 2025 – May 2025**
International Clients / Upwork *Remote*

- Delivered 3 end-to-end commercial web and mobile applications for North American clients using **React.js, React Native, TypeScript, Node.js, and Firebase**, meeting 100% of project deadlines.
- Standardized client application architecture by implementing strict typing and global state management, cutting post-launch crash rates by 40%.
- Orchestrated full project delivery lifecycle from scoping and sprint demos to App Store, Play Store, and Vercel cloud deployments via **CI/CD**.

Full-Stack & Mobile Developer **Dec 2023 – Jan 2025**
The Mind Gauge *Lahore, Pakistan*

- Constructed cross-platform apps backed by **FastAPI & React Native**, scaling to serve 10,000+ active users across North American and GCC client markets.
- Configured real-time data sync with **Firestore offline cache** and multi-channel push notifications via **FCM**, increasing 30-day user retention by 22%.
- Implemented biometric authentication (**FaceID/Fingerprint via Keychain**) and multi-currency checkout via **Stripe SDK**, securing 100% of client payment operations.
- Reduced mobile bundle size by 32% through selective asset vectorization, dynamic imports, and ProGuard / Hermes bytecode optimization.

Associate Software Developer (Part-Time) **Jul 2023 – Sep 2024**
Asper InfoTech *Hasilpur, Pakistan*

- Contributed to 5+ commercial web and mobile applications, designing 40+ responsive screens using React.js and React Native with 99% Figma precision.
- Configured **CI/CD** build distributions with Fastlane and GitHub Actions and **Unit/Integration Testing** suites, slashing release deployment turnaround from 3 hours to under 15 minutes.

Key Production Projects

SM-CRM – Dealership ERP Suite | *Next.js 16, React Native, FastAPI, PostgreSQL* GitHub (Enterprise SaaS)

- End-to-end dealership ERP platform connecting a Next.js 16 web dashboard with Shadcn UI, React Native mobile client, and async FastAPI backend.
- Designed automated lead pipelines, customer KYC verification, biometric authentication, and financial expense tracking across 30+ showroom operations.

Zaiqa-Restaurant POS & KDS Suite | *React.js, Electron, React Native, Supabase* GitHub Repository

- Multi-platform restaurant management ecosystem spanning an **Electron desktop POS**, **React Native tablet app** for table-side ordering, and web manager portal.
- Implemented real-time Supabase order synchronization, thermal receipt printing proxy, kitchen display routing (KDS), and live table reservation management.

Start Office / ICMS – Enterprise Suite | *React Native, React.js, WebRTC, Socket.io* GitHub (Enterprise App)

- Enterprise operations platform featuring an **in-app Conversational AI Assistant** with dynamic context injection, multi-threading, and automated tool calling.
- Integrated peer-to-peer **WebRTC audio/video conferencing** and **Socket.io** instant messaging, unified with HR, PM, Accounts, and document generation.

AI WhatsApp Voice & Text Platform | *Meta Cloud API, Groq LLM, Twilio, FastAPI* GitHub (Production AI Platform)

- Autonomous 24/7 engagement platform integrating **Meta WhatsApp Cloud API**, **Groq LLM**, and speech-to-text pipeline to process 3,000+ daily audio notes and inquiries.
- Developed a companion **React Native mobile monitoring app** allowing administrators to track live bot conversations, trigger manual takeovers, and inspect analytics.

KarayDaar & KarayDaar Agency | *React Native, Firebase, Google Maps, JazzCash* Play Store (5.0 Rating) | App Store

- Flagship real estate rental platform published on iOS and Android with custom map search, real-time messaging, and in-app booking confirmation.
- Integrated instant KYC verification, digital rental contracts, and secure JazzCash gateway handling live monetary transactions.

Education & Languages

Superior University **Lahore, Pakistan**
Bachelor of Science in Computer Science (BSCS) – Major in Software Engineering *2020 – 2024*

Languages: English (Full Professional Working Proficiency – Certified), Urdu (Native) | **Availability:** Immediate / 2-Week Notice