

Asim Tariq

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Summary

Mobile Application Developer and Product Engineer specializing in building, architecting, and deploying high-performance cross-platform mobile products using Flutter, React Native, and native mobile toolchains. Experienced in full product lifecycles—from real-time WebSocket/WebRTC systems and offline sync layers to backend API design (NestJS, Firebase) and end-to-end release management across Google Play Store and Apple App Store.

Education

COMSATS University Islamabad, Abbottabad Campus, BS in Software Engineering Sept 2020 – July 2024

- **Final Year Project:** AI-based English Learning Mobile Application (React Native, Firebase, NLP)
- **Coursework:** Software Engineering, Data Structure and Algorithms, Database Systems, Mobile Application Development, Web Development, Operating Systems, Project Management

Experience

Mobile Application Developer & Product Engineer, Firnas.tech – Abbottabad Dec 2024 – Present

- Lead cross-platform mobile product development using Flutter and React Native, driving feature roadmaps from architectural design to deployment on Google Play Console and App Store Connect.
- Integrate custom NestJS RESTful microservices, WebSockets (Socket.IO), WebRTC, and Firebase infrastructure for live communication, dynamic scheduling, and push notifications.
- Streamline mobile state management architectures (GetX, Redux Toolkit) and modular component systems, accelerating feature shipping cycles while enforcing strict UI/UX reliability.
- Manage store compliance, submission guidelines, beta distribution testing (TestFlight/Internal Testing), and automated build provisioning.

Associate Software Engineer, Robotics World – KPIT Park, Abbottabad March 2024 – Nov 2024

- Built and maintained responsive mobile applications and supporting web interfaces using React Native, Flutter, and React.
- Collaborated with product leaders and senior engineers on backend REST API integration, database migrations, and mobile app performance optimization.
- Standardized team Git version control workflows, automated build routines, and integrated AI capabilities into user-facing mobile components.

Projects

RouteWise – Mobile Fleet & Payroll Driver App [App Store](#) | [Play Store](#)

- Architected a multi-role mobile app in Flutter (GetX) supporting tailored dashboards for Admins, Managers, and Drivers with secure Role-Based Access Control (RBAC).
- Integrated real-time dispatch chat and low-latency audio/video calling using Socket.IO and WebRTC protocols for continuous driver-dispatcher communication.
- Implemented reliable FCM push notifications covering foreground, background, and terminated app states alongside an automated payroll calculation and Stripe recurring subscription engine.
- **Tools Used:** Flutter, Dart, GetX, Socket.IO, WebRTC, FCM, Stripe, flutter_secure_storage, REST APIs.

Aeronaa Booking – Travel & Package App [App Store](#) | [Play Store](#)

- Architected a full-featured cross-platform travel mobile app in Flutter for seamless booking of flights, hotels, car rentals, properties, and Umrah packages.
- Integrated **Akbar Travels** and **Rapid APIs** to handle complex third-party flight schedules, hotel inventories, dynamic price aggregation, and automated booking workflows.

- Handled end-to-end publishing, keystore signing, provisioning profiles, and store compliance updates across both Apple App Store and Google Play Store.
- **Tools Used:** Flutter, Dart, GetX, NestJS APIs, SendGrid, App Store Connect, Google Play Console.

Wimbo – Local Events & Social Hangouts

[App Store](#) | [Play Store](#)

- Engineered a real-time event discovery and social networking mobile app using React Native and Redux Toolkit, deployed to both major app stores.
- Implemented interactive Google Maps geolocation services, real-time event feed sync and community chat using Socket.IO, and secure ticket checkout with Stripe.
- Integrated Firebase Auth, Firestore real-time listeners, and AI-driven engagement components for interactive event discovery.
- **Tools Used:** React Native, Redux Toolkit, Socket.IO, Google Maps API, Stripe, Firebase, App Store Connect, Google Play Console.

Moana EHR Mobile App

[GitHub](#)

- Developed a cross-platform mobile EHR application in React Native for doctors and clinical staff to monitor patient vitals, access medical records, and manage hospital workflows on the go (*upcoming App Store & Google Play release*).
- Implemented a robust offline-first synchronization engine using WatermelonDB to guarantee uninterrupted local data persistence and seamless background sync during connectivity drops.
- Integrated real-time secure staff messaging via Socket.IO and peer-to-peer clinical video consultations using WebRTC.
- **Tools Used:** React Native, Redux Toolkit, WatermelonDB, Socket.IO, WebRTC, TypeScript, REST APIs.

AZHM – E-Commerce & Interactive Gaming App

[App Store](#)

- Developed and published a feature-rich iOS shopping application in Flutter featuring seamless product catalog browsing, cart management, and secure checkout flows.
- Designed and integrated engaging interactive in-app minigames to boost user retention, gamified rewards, and overall customer engagement.
- Managed full store lifecycle, release provisioning, and performance optimization using GetX state management.
- **Tools Used:** Flutter, Dart, GetX, REST APIs, App Store Connect.

MindPlayer – Immersive 3D Spatial Audio & Meditation Platform

[Coming Soon](#)

- Architected a hybrid spatial audio engine combining **Flutter SoLoud** (C++ wrapper) and **JustAudio / AudioSession** for low-latency multi-track playback, resolving native iOS **AVFoundation** (`mixWithOthers`) and Android audio focus deadlocks.
- Integrated embedded **Unity 3D** viewports and 360° panoramas synchronized with real-time motion sensors (**sensors_plus**) to dynamically compute 3D sound azimuth, distance attenuation, and interactive spatial audio node positioning.
- **Tools Used:** Flutter, Dart, C++ (SoLoud), Unity 3D, GetX, JustAudio, WebSockets, Dio, `sensors_plus`, `flutter_screenutil`, REST APIs.

Technologies

Mobile & 3D Development: Flutter, React Native, Dart, TypeScript, C++ (Engine Bindings), Unity 3D (Embedded Runtime), iOS (Xcode, Swift/Obj-C), Android (Android Studio, Gradle)

Audio, Sensors & Architecture: 3D Spatial Audio (SoLoud), AVFoundation, Android AudioTrack, Gyroscope/Sensor Fusion, GetX, Redux Toolkit, React 19, Offline-First Sync

Backend, Real-Time & APIs: NestJS, Node.js, RESTful APIs, Third-Party Travel APIs (Akbar Travels, Rapid API), Dio (Interceptors/Auth), WebSockets (Socket.IO), WebRTC, Firebase (Auth, Firestore, FCM)

Deployment, Cloud & Tools: App Store Connect, Google Play Console, Desktop OTA (CloudFront, Cloudflare R2, Azure), macOS/Windows Code Signing & Licensing, Docker, AWS (S3, CloudFront), Git/GitHub