

Ahmad Hussain

Senior Mobile Developer

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PROFESSIONAL SUMMARY

Senior Mobile Developer with **9+ years** of experience building production mobile applications, including **5+ years of hands-on Flutter and Dart** development across Automotive, Healthcare, Fintech, E-commerce, IoT, and Construction-tech domains. Deep, demonstrable expertise with the **Flutter framework, widget lifecycle, and rendering pipeline**, using the **Flutter SDK and DevTools** for performance profiling and debugging. Skilled with **state management approaches (BLoC, GetX, Provider-style patterns)** and architectural patterns including **Clean Architecture and MVVM**, applied to real, shipped products rather than theory. Experienced with **local persistence and schema design (Drift, Hive, SQLite/Room)**, including data migrations across app updates, and with writing **unit, widget, and integration tests** as part of a TDD-driven workflow (3,000+ automated test cases authored). Has published and maintained apps on both the **App Store and Google Play**, owning release and code-signing workflows end-to-end (Fastlane, GitHub Actions), including **native iOS builds with Swift and Xcode**. Brings a strong native foundation – **9+ years of native Android (Kotlin/Java)** and working proficiency in **native iOS (Swift)** – giving a working understanding of platform fundamentals needed to diagnose platform-specific issues and bridge native code from Flutter when required. Uses **AI-assisted development tools (Claude Code, GitHub Copilot, and equivalents)** as part of the regular workflow for code generation, debugging, and test automation, and has defined and enforced software development best practices (SOLID, Clean Architecture, code review standards, CI/CD) across teams.

TECHNICAL SKILLS

Flutter & Dart: Flutter Framework, Dart, Widget Lifecycle & Rendering Pipeline, Flutter SDK, Flutter DevTools, Custom Painters/Canvas, Platform Channels, Responsive & Adaptive UI

State Management: BLoC, GetX, Provider-based patterns, ChangeNotifier, StateNotifier-style patterns

Architecture & Design Patterns: Clean Architecture, MVVM, MVI, MVP, Repository Pattern, Modular Architecture, SOLID Principles

Local Persistence: Drift, Hive, SQLite, Room, Realm, Schema Design & Migrations, Encrypted SharedPreferences, DataStore, Core Data

Testing & Quality: Unit Testing, Widget Testing, Integration Testing, JUnit, Mockito, MockK, Espresso, Compose UI Testing, XCTest, Test-Driven Development (TDD), BDD

Performance & Debugging: Flutter DevTools, Android Profiler, Xcode Instruments, LeakCanary, ANR/Crash Analysis, Memory & Battery Optimization, App Size Optimization

Native Platforms: Native Android (Kotlin, Java), Native iOS (Swift, SwiftUI, UIKit), Platform-Specific Debugging, Native Code Bridging via Platform Channels, App Store Build & Release

Mobile Platforms: Cross-Platform (Flutter, KMP, CMP), Native iOS & Android, SDK Integration, App Performance Optimization

Languages: Dart, Kotlin, Swift, Java, Python, JavaScript, PHP (Laravel), HTML, CSS

UI Frameworks: Flutter Widgets, SwiftUI, UIKit, Jetpack Compose, Compose Multiplatform, XML Layouts, Material Design 3

Android Jetpack: Room, ViewModel, LiveData, Navigation Component, WorkManager, DataStore, Paging 3, CameraX

Dependency Injection: Dagger 2, Hilt, Koin

Reactive & Async Programming: Kotlin Coroutines, Flow, StateFlow, SharedFlow, RxJava, Swift Concurrency (async/await, Combine), Dart Streams/Futures

Networking: Retrofit2, OkHttp3, URLSession, GraphQL, WebSocket, Socket.IO, REST APIs, API Security, SSL Pinning

Cloud & Backend Services: Firebase (Crashlytics, Analytics, FCM, Remote Config, Auth, Performance), AWS Cognito, AWS Amplify, OAuth 2.0, JWT

IoT & Embedded Communication: Bluetooth Low Energy (BLE), GATT, MQTT, CAN Bus (J1939, OBD-II), NRF Mesh, OTA Firmware Updates

Release & CI/CD: App Store Connect, Google Play Console, Code Signing, Fastlane, GitHub Actions, GitLab CI, Jenkins, Gradle, Phased Rollouts

Tools & Collaboration: Git, GitHub, GitLab, Bitbucket, JIRA, Figma, Postman, Android Studio, Xcode, IntelliJ IDEA, VS Code

AI-Assisted Development: Claude Code, AI-Augmented Code Generation, Debugging & Test Automation, AI-Assisted Documentation & CI/CD Optimization

Leadership & Best Practices: Technical Leadership, Code Reviews, Team Mentoring, Agile/Scrum, Defining Development Best Practices, Stakeholder Communication

PROFESSIONAL EXPERIENCE

Senior Software Engineer

MRS Technologies

Apr 2021 – Present

Islamabad, Pakistan

- Architected and delivered **4 production applications** across Automotive and IoT domains using **Flutter, Dart, Kotlin, Jetpack Compose, and Clean Architecture/MVVM**
- Built a cross-platform **Flutter vehicle-control gateway app** (NX NextHMI) with **GetX state management**, dynamic widget-driven UI generated from config data, and real-time BLE/CAN data streaming – published to both **App Store and Google Play**
- Designed **BLE communication layer** supporting CAN/J1939, OBD-II, and NRF Mesh protocols for real-time device pairing, data exchange, and **OTA firmware updates**, integrated with **platform channel bridging** to native Android and iOS
- Implemented **MQTT-based publish/subscribe messaging** for bidirectional real-time communication between mobile apps and connected embedded hardware
- Owned end-to-end **release and code-signing workflows** for App Store Connect and Google Play Console; automated builds with **Fastlane and GitHub Actions**, including versioning and team notifications
- Integrated **AWS Cognito & AWS Amplify** for secure OAuth 2.0 authentication and device provisioning in IoT-connected apps
- Authored **3,000+ automated unit, widget, and UI test cases** (JUnit, Mockito, Espresso, UI Automator); used **Flutter/Android DevTools** for performance profiling and memory/battery debugging; enforced TDD across sprints
- Use **AI-assisted development tools (Claude Code)** daily for code generation, debugging, and test scaffolding; defined and rolled out software development best practices (SOLID, code review standards, CI/CD) across the team

Senior Mobile Developer

AI Nexus Healthcare

Aug 2022 – Mar 2024

Remote (US-based)

- Built and scaled a **telemedicine platform (Mia Vitals)** serving **10,000+ active users** using **Flutter, Dart, and BLoC state management**, published on both **App Store and Google Play**
- Developed **real-time biometric monitoring** with live face and finger vital sign detection using camera frame streaming, CameraX, and Socket.IO dashboards
- Implemented **SSL certificate pinning, encrypted REST APIs, and JWT-based auth** to meet HIPAA data security and privacy requirements
- Integrated **Stripe payment gateway** with fraud prevention logic and Google Maps SDK with custom geofencing for location-aware features
- Delivered **30% reduction in memory usage** and **40% faster load times** using **Flutter DevTools** performance profiling; wrote **unit, widget, and integration tests** achieving **80%+ code coverage**

Team Lead – Mobile Developer

Eikon7 - Creative

Oct 2018 – Apr 2021

Islamabad, Pakistan

- Led a **cross-functional team of 5 engineers** to build and ship a **multi-app food delivery ecosystem** (Customer, Rider, Restaurant) using **native Android (Java) and MVVM**
- Owned full **App Store & Google Play release lifecycle**: app signing, ASO, phased rollouts, feature flagging via Firebase Remote Config, and hotfix management
- Integrated **local payment gateways** (JazzCash, Easypaisa, Bank Alfalah), in-app wallet, and automated salary disbursement engine for riders
- Deployed **Firebase suite** (FCM, Auth, Crashlytics, Analytics, Remote Config) with ML-based fraud detection and real-time monitoring dashboards
- Mentored **5+ junior developers** through structured code reviews, pair programming, and architecture workshops; **defined team engineering best practices** for MVVM and Clean Architecture

Junior Android Developer

Codemaze Pvt. Ltd

May 2017 – Oct 2018

Rawalpindi, Pakistan

- Developed consumer Android apps consuming **RESTful APIs** (Google Maps, YouTube, Facebook Graph) with **Retrofit2, OkHttp3** and fragment-based navigation
- Implemented **FCM push notifications**, background services, **AdMob integration**, and **in-app purchases (IAP)** to drive engagement and monetization
- Developed responsive UI with **Jetpack Compose and XML**; managed local data using **Room Database and SQLite**, including schema updates across releases; published releases via Fastlane CI/CD
- Configured **ProGuard/R8** for code shrinking, obfuscation, and optimization to improve app performance and security

KEY PROJECTS

NX NextHMI | Cross-Platform Automotive Gateway (Flutter) – MRS Technologies

[App Store](#)

[Play Store](#)

- **Tech:** Flutter, Dart, GetX, BLE, CAN Protocol, Platform Channels, Deep Linking, XML Parsing, Accelerometer, Gyroscope
- Cross-platform **vehicle control gateway** built entirely in Flutter, with dynamic UI generated from XML config files, deep linking, and real-time CAN data streamed over BLE via platform-channel bridging to native code
- Integrated **motion sensor controls** (accelerometer, gyroscope) for remote vehicle operations including doors, ignition, windows, horn, and climate; independently owned App Store and Play Store release/code-signing

Mia Vitals | Telemedicine & Remote Patient Monitoring (Flutter) – AI Nexus Healthcare

miavitals.com

- **Tech:** Flutter, Dart, BLoC, Socket.IO, CameraX, Stripe, Firebase (Analytics, Crashlytics), Google Maps, Retrofit, SSL Pinning, Widget/Integration Testing
- Telemedicine app for **10,000+ users** with real-time biometric vitals (face & finger detection), live dashboards, and secure video consultations, published on App Store and Google Play
- Achieved **30% memory reduction** and **40% load time improvement** via **Flutter DevTools** profiling; **80%+ test coverage** across unit, widget, and integration tests; Stripe payments with fraud prevention and geofencing

Mafell AG | Construction Tool (Flutter) – MRS Technologies

- **Tech:** Flutter, Dart, Flutter Canvas, CustomPainter, Drift Database, Schema Migrations, Unit/Widget Testing (3,000+ cases)
- German construction app for **brick wall layout planning** – custom cutting angle algorithms rendered with Flutter Canvas and CustomPainter
- Robust **offline-first architecture** using Drift with versioned **schema migrations** across app updates; comprehensive automated test suite with 3,000+ unit and widget test cases

ConnectedLogger | Automotive Fleet Management – MRS Technologies

[Play Store](#)

- **Tech:** Kotlin, Jetpack Compose, MVVM, Dagger, BLE (GATT), CAN J1939, OBD-II, MQTT, Room, Fastlane, JUnit, Espresso
- Native Android app for **real-time vehicle fleet monitoring** – BLE device discovery, secure pairing, CAN signal streaming, GPS tracking, and flash log export
- Built reactive **live data dashboard** for CAN signals and vehicle events; designed Room persistence layer with schema migrations for offline log storage and backend sync

MTronic | Smart Home Automation – MRS Technologies

[Play Store](#)

- **Tech:** Kotlin, Jetpack Compose, MVVM, Hilt, AWS Cognito, AWS Amplify, BLE, NRF Mesh, MQTT, Fastlane
- Android app for **smart home device control** – scenes, automations, and device management via AWS Amplify with OAuth 2.0 via AWS Cognito
- Implemented **BLE provisioning** and **NRF Mesh networking** for seamless onboarding and OTA firmware updates of smart home hardware

FoodRunner | On-Demand Food Delivery Platform – Eikon7

Customer | Rider | Restaurant

- **Tech:** Java, Android, MVVM, Google Maps SDK, Socket.IO, Firebase Suite, JazzCash, Easypaisa, Geo-Fencing API
- 3-app ecosystem (Customer, Rider, Restaurant) with **real-time GPS order tracking**, Socket.IO live chat, geo-fencing, and revenue analytics dashboards
- Integrated **3 local payment gateways**, in-app wallet, automated rider salary engine; deployed Firebase suite for auth, push notifications, and fraud detection

EDUCATION

Master of Science in Data Science

Shaheed Zulfikar Ali Bhutto Institute of Science & Technology

Jan 2019 – Oct 2021

Islamabad, Pakistan

- CGPA: 3.49 / 4.0
- Relevant Courses: Machine Learning, Deep Learning, Artificial Intelligence, Cloud Computing, Research Methodology

- CGPA: 3.69 / 4.0
- Relevant Courses: Data Structures, Database Management Systems, Information Technology, Object-Oriented Programming

KEY ACHIEVEMENTS

- Delivered **25+ production applications** (Flutter and native Android) across Automotive, E-commerce, IoT, Fintech, and Healthcare domains with consistent 4.5+ store ratings
- Published and maintained apps on both **App Store and Google Play**, independently owning code-signing, release, and phased-rollout workflows
- Reduced **app crash rate by 85%** through proactive Crashlytics monitoring, ANR analysis, and robust error handling strategies
- Improved **app performance by 40%** and **memory efficiency by 30%** using **Flutter DevTools** and Android Profiler for systematic profiling and leak detection
- Established **TDD culture** with 3,000+ automated unit, widget, and integration test cases and 80%+ code coverage across multiple Flutter and native projects
- Mentored **10+ junior and mid-level developers** in Flutter, Clean Architecture, state management, and modern mobile best practices
- Earned **Claude Code 101 Certificate** (Anthropic) – demonstrating proficiency in AI-assisted development workflows and agentic coding with Claude Code
- Completed **Generating Effective Prompts for AI** (IBM) – covering prompt engineering techniques for getting reliable output from generative AI tools