

NARESH CHOCHA

Senior Mobile Engineer — Tech Lead, Android & Flutter

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PROFESSIONAL SUMMARY

Senior mobile engineer — **native-Android-first by depth (6+ yrs), Flutter-leaning by current project mix** (Pipli, Releventful, Guard Management, B-Hit). Currently tech-leading an 8-engineer cross-platform team and **own per-project stack selection** — shipped 3+ native Android and 4+ Flutter projects in the last 18 months, picking each based on hardware depth, time-to-market, and long-term maintenance. Own the platform-channel bridge layer that lets both stacks share security, FFmpeg, file-picker, and on-device AI infrastructure.

Selected Highlights

- Sub-100 ms on-device TFLite face-recognition shipped to production telecom (CIAT, native Android)
- **50%+** video payload reduction via Flutter ↔ native FFmpeg bridge (B-Hit)
- **15+** store production releases (Google Play & App Store) · **zero** critical rollout incidents
- Reusable platform-channel bridges shared across **4+** Flutter client projects · FilePicker OSS lib (**150+** stars)

CORE SKILLS

- **Languages:**
 - Kotlin, Dart, Java, Swift, SQL, Groovy (Gradle DSL)
- **On-Device AI (Production):**
 - TensorFlow Lite (native + tflite_flutter), Google ML Kit (native + google_mlkit_*), CameraX-based real-time inference, model quantization (Q4/Q8), NNAPI hardware acceleration, privacy-first / zero-cloud inference architecture
- **GenAI (Evaluation / POC for client roadmaps):**
 - Gemini Nano via AICore Prompt API / flutter_gemma, ML Kit GenAI APIs, MediaPipe LLM Inference, LiteRT-LM; native + Flutter ↔ native AI bridges; hybrid local/cloud routing strategy
- **AR:**
 - ARCore (Augmented Images, Augmented Faces) — shipped to telecom production
- **Native Android:**
 - Android SDK, Jetpack Compose, Jetpack (ViewModel, LiveData, Navigation, Room, WorkManager, DataStore), Coroutines, Flow, Hilt, Dagger 2, Retrofit, OkHttp, Material Design 3, ExoPlayer, CameraX
- **Flutter / Cross-Platform:**
 - Flutter SDK (3.x / 4.x), Dart, BLoC / Cubit, Provider, Riverpod, get_it, freezed, json_serializable, Dio, Hive, sqflite, Drift, Material 3, Cupertino, Custom Painters, Slivers, Animations
- **Native Interop:**
 - Flutter Platform Channels (Method Channels, Event Channels, Pigeon), native Android (Kotlin) bridge modules, iOS (Swift) bridge integration for the App Store release pipeline
- **Architecture & Design Patterns:**
 - MVVM, MVI, Clean Architecture, Modular Monolith, Multi-Module Android, Layered Architecture (data / domain / presentation), Repository Pattern, Use Cases, Dependency Injection, SOLID
- **Leadership:**
 - Cross-platform mobile team leadership (8 engineers), Technical roadmap planning, Architecture decision records (ADRs), Code review governance, Mentorship, Sprint planning, Stakeholder communication, Hiring & technical interviewing

- **Performance & Reliability:**
 - Android Profiler, Flutter DevTools, Widget rebuild profiling, Memory leak detection (LeakCanary), ANR reduction, Startup optimization, Baseline Profiles, App size optimization, Firebase Crashlytics, Firebase Performance Monitoring, Sentry
- **Testing:**
 - JUnit, Mockito, MockK, Espresso, Robolectric, Flutter Widget Tests, Integration Tests, Golden Tests, Mocktail, Test-Driven Development (TDD)
- **DevOps & Release:**
 - Gradle build optimization, Continuous Integration / Continuous Delivery (CI/CD) with GitHub Actions, Bitrise, and Codemagic, Fastlane, Google Play Store and Apple App Store release management, App Bundles (AAB), Phased rollouts, Firebase App Distribution, TestFlight, Build flavors (dev / staging / prod)
- **Security:**
 - SSL/TLS Certificate Pinning, Android Keystore, EncryptedSharedPreferences, Flutter Secure Storage, Encrypted local databases, Root / Jailbreak detection, ProGuard/R8 obfuscation, OWASP Mobile Top 10
- **APIs & Networking:**
 - REST APIs, GraphQL, WebSockets, JSON parsing, Paging 3, Dio interceptors, Retrofit
- **Tools:**
 - Android Studio, VS Code, Xcode, Git, GitHub, GitLab, Jira, Figma, Postman, Charles Proxy, Firebase Console

PROFESSIONAL EXPERIENCE

Senior Mobile Engineer — Tech Lead, Android & Flutter (8 reports)

Openxcell Technolabs Pvt. Ltd. — Ahmedabad, India

Aug 2022 – Present

- Tech-lead an 8-engineer cross-platform mobile team shipping **both native Android and Flutter** apps across 5+ concurrent client engagements; own architecture, code review governance, hiring loop, and technical roadmap.
- **Own per-project stack selection** (native Android vs Flutter) — decided based on hardware integration depth, time-to-market, and long-term maintenance cost. Documented decisions as ADRs so the next lead can audit the trade-offs (e.g., Kairos → native Android for modular-monolith hardware needs; Pipli / Releventful → Flutter for faster cross-platform delivery).
- Architected reusable **Platform-Channel bridges** exposing native Android capabilities (NFC, geofencing, FFmpeg, FusedLocation, file picker) to Flutter — letting one Flutter codebase consume the same native infrastructure across clients instead of maintaining parallel native apps.
- Eliminated cross-squad merge bottlenecks through modular architecture (Modular Monolith for Android; feature-modular Flutter projects with BLoC + Clean Architecture), enabling parallel feature delivery across the team.
- Tightened release cadence through CI/CD automation (GitHub Actions, Bitrise, Codemagic, Fastlane) and structured sprint delivery.
- Shipped **15+ store production releases across Google Play and Apple App Store** (iOS releases for Pipli, Releventful, Guard Management, B-Hit) with **zero critical rollout failures** — owned end-to-end App Store Connect submission, TestFlight pipeline, phased rollouts, Crashlytics-gated promotion, and Apple review-response cycles.
- Defined org-wide engineering baselines for both stacks (MVVM + Clean Architecture for Android; BLoC + Clean Architecture for Flutter; Gradle conventions; CI checks) — adopted across **5+ client projects**.
- Spearheaded a reusable native Android component library and a Flutter package set, eliminating cross-project duplication and shortening new-engineer ramp-up time.
- **Lead the on-device AI / GenAI evaluation track** across both stacks — POCs on Gemini Nano (AICore Prompt API / flutter_gemina), ML Kit GenAI APIs, MediaPipe LLM Inference, TensorFlow Lite, and LiteRT-LM; defined a privacy-first, hybrid local/cloud routing strategy with Q4/Q8 quantization and NNAPI/NPU acceleration for resource-constrained devices.
- Mentor mid-level engineers across both stacks on Compose migration, Coroutines/Flow, BLoC, platform-channel integration, and on-device ML.

Senior Android Developer

Sky Productivity Pvt. Ltd. — Ahmedabad, India

Jul 2021 – Aug 2022

- Cut the app's Crashlytics crash rate by ~**30%** over 2 release cycles through Android Profiler-driven lifecycle audits, memory-leak fixes (LeakCanary), and elimination of recurring ANR patterns.
- Implemented **SSL certificate pinning** and **Android Keystore-backed encryption** to secure API traffic and at-rest credentials for the enterprise field-ops platform — **security baseline that carried the application through annual third-party security audits.**
- Defined the org-wide mobile-security baseline (SSL pinning, root detection, encrypted storage, ProGuard/R8 hardening) — later extended into our Flutter platform-channel security wrappers.
- Improved API reliability through stricter contract validation, retry logic, and standardized error mapping — measurably reduced retry-loop incidents and 5xx tail in production.
- Established the team's code review workflow, raising release stability and reducing post-release hotfixes.

Earlier Android Roles (2019 – 2021)

Sahana System Pvt. Ltd. (Jul 2020 – Jul 2021), SMcodetech IT Firm (Nov 2019 – Jul 2020), Shree Tripada Infomedia Pvt. Ltd. (Jun 2019 – Nov 2019) — Ahmedabad, India

- Built native Android apps in Java/Kotlin (Material Design, SQLite, SharedPreferences) across 3 product/services teams; tightened app performance through lifecycle profiling, layout flattening, and overdraw reduction.
- Standardized Git workflows (feature branching, conventional commits, PR-based reviews) and resolved high-priority production issues to improve overall stability.

PROJECTS

Kairos — Enterprise Field Operations (Native Android, Modular Monolith)

Mar 2025 – Present

Tech: Kotlin, Jetpack Compose, Hilt, Coroutines/Flow, Room, Modular Monolith

- Architected a modular-monolith Android application for a production enterprise client, isolating authentication, project, work order, and help center domains into independent feature modules.
- Drove architecture decisions enabling parallel feature development across an 8-engineer team while keeping operational simplicity over an over-fragmented multi-module setup.
- Designed state-driven UI flows in Jetpack Compose with unidirectional data flow, improving maintainability and long-term scalability.

Pipli — Flutter Consumer Application

Jan 2024 – Present

Tech: Flutter, Dart, BLoC, Dio, freezed, Hive, Firebase, REST APIs

- Built modular feature screens with **BLoC state management**, achieving deterministic state transitions and full unit-test coverage of business logic.
- Implemented Dio-based REST integration with interceptors for auth refresh, retry, and structured error mapping.
- Designed a custom theming system supporting light/dark modes and dynamic typography across the entire app.

Guard Management System — Cross-Platform with Native Bridges

May 2024 – Present

Tech: Flutter, Dart, Platform Channels, NFC (native Android), Geofencing API, BLoC, FusedLocationProvider

- Designed and shipped a Flutter app with **Platform Channels** bridging native Android NFC tag scanning and geofence-driven attendance validation, reducing attendance spoofing risk and improving field accountability.
- Engineered real-time location validation safeguarded by mock-location detection, root detection, and device integrity checks via native Android channels.

Relevantful — Flutter Event & Attendance Platform

Aug 2022 – Mar 2023

Tech: Flutter, Dart, Provider, Geofencing, Firebase, REST APIs

- Implemented geofence-based clock-in / clock-out for accurate location-based attendance.
- Owned end-to-end Google Play Store release management with phased rollouts and compliance updates.

B-Hit — Social Video Sharing (Flutter + native FFmpeg bridge)

Apr 2023 – Aug 2023

Tech: Flutter, Dart, FFmpeg (native Android bridge), video_player, Dio, BLoC

- Designed a Flutter ↔ native FFmpeg compression bridge over a method channel, exposing transcoding, resolution scaling, and bitrate-controlled re-encode to the Dart layer — **reducing media payload size by 50%+** and proportionally cutting upload bandwidth costs.
- Engineered the upload pipeline as a backgrounded job with progress events streamed back over an event channel, decoupling UI state from network/encode latency.
- Built smooth feed playback with prefetching, lifecycle-aware video caching, and recyclable controller pooling to keep frame drops low while scrolling.

CIAT — AR + On-Device AI Face Recognition (Privacy-First, Native Android)

Dec 2021 – Jul 2022

Tech: Kotlin, ARCore (Augmented Images / Augmented Faces), TensorFlow Lite, CameraX, NNAPI

- Architected and shipped a **privacy-first on-device AI inference pipeline** using **TensorFlow Lite** with a **quantized face-recognition model**, achieving **sub-100 ms real-time inference** under low-end device constraints — zero cloud round-trips.
- Integrated **ARCore** for augmented image and face tracking to support telecom field operations in production.
- Optimized inference using **NNAPI hardware acceleration** and model quantization to keep memory footprint and battery impact minimal across mid-range devices.

TabLess (Onzway) — Restaurant IoT Ordering (Native Android)

Nov 2020 – Jul 2021

Tech: Kotlin, Wi-Fi/Bluetooth IoT, Room, Coroutines

- Engineered Wi-Fi and Bluetooth IoT printer integrations for real-time order processing in production restaurant environments.
- Designed an offline-first persistence architecture preventing order loss during connectivity disruptions.
- Reduced operational failures through structured error handling and retry mechanisms, minimizing device-to-printer lag.

OPEN SOURCE

File Picker Library for Android

GitHub: github.com/ChochaNaresh/FilePicker | **2022 – Present**

Tech: Kotlin, ContentResolver, MediaStore, Coroutines (consumable from Flutter via platform channels)

- Author and maintain a lightweight Android media picker library (~200 KB footprint) with **150+ GitHub stars** and an idiomatic Kotlin DSL API.
- Designed a permission-aware, lifecycle-safe file handling pipeline supporting images, videos, and documents across Android 8 – 14 (scoped storage compliant); integrated into Flutter apps via custom platform channels.

EDUCATION

Bachelor of Computer Applications (BCA)

Shree H. J. Doshi Information Technology Institute, Jamnagar

Jun 2016 – Mar 2019