

# MATTA ASHOK VARMA

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## SUMMARY

• Senior Android Developer with 3+ years of experience building and optimizing high-traffic production applications on Google Play Store using Kotlin, Jetpack Compose, and Kotlin Multiplatform (KMP). Proven track record of migrating legacy XML codebases to Compose, eliminating critical OOM crashes, and achieving 99.4% crash-free rates. Expertise in on-device AI, hardware integration, Clean Architecture (MVVM/MVI), and AI-assisted development. Delivered 20+ apps across 60+ repositories.

## TECHNICAL SKILLS

<b>Programming Languages</b>	: Kotlin, Java, Python, C, SQL, HTML5, CSS
<b>Android &amp; Frameworks</b>	: Jetpack Compose, Material 3, KMP, Compose Multiplatform, Koin, Room DB, Coroutines & Flow, ExoPlayer/Media3, Ktor, Coil 3, CameraX, ML Kit, Firebase, WorkManager
<b>Architecture &amp; Patterns</b>	: Clean Architecture, MVVM, MVI, Offline-First, Repository Pattern, Use Cases
<b>AI &amp; Cloud</b>	: Gemini API, MediaPipe (Gemma 2B), ComfyUI, Cloudflare R2, Google Maps SDK, HERE Maps SDK
<b>Tools</b>	: Android Studio, Git, GitHub, Gradle, Figma, Claude Code, FFmpeg

## WORK EXPERIENCE

### Android Developer

Feb 2022 – Present

Ramson Softech Pvt Ltd, Hyderabad

- **Architecture & Modernization:** Led UI overhaul of high-traffic Play Store apps, migrating 60% of critical modules from XML to Jetpack Compose. Refactored codebases with Koin DI, reducing boilerplate by 40% and improving maintainability across the product suite.
- **Performance & Stability:** Resolved critical memory leaks and OutOfMemoryError crashes across media services by implementing bitmap recycling, lifecycle-aware coroutines, and safe surface tracking. Achieved **99.4% crash-free rate** and reduced ANR rate by **38%**.
- **Media & Generative AI:** Engineered custom image filters and real-time blending modes via bitmap rendering research. Built GenAI pipelines integrating Gemini API and ComfyUI for server-side video/image processing.
- **Hardware & Data Management:** Designed offline-first Room DB schemas for heterogeneous data types. Engineered hardware-interfacing features for low-latency camera access, flash control, and microphone integration.

### Key Production Apps (Live on Google Play Store):

- **GPS Village Maps & Navigation:** Reduced ANR rate by **38%** via GPS callback optimization, cut cold start by **45%** with lazy Koin DI, migrated 60% XML to Compose, integrated Google Maps + HERE Maps dual SDK. DAU increased **2.4x** post-optimization.
- **Transparent Live Wallpaper:** Fixed Camera Busy crashes by resolving WallpaperService-Camera2 lifecycle conflicts — **92% crash reduction**. Optimized memory by **35%** binding Glide + MediaPlayer to lifecycle. Battery drain reduced by **28%** with frame-skip logic. User retention improved **1.8x**.
- **QR & Barcode Scanner:** Eliminated **100%** of scanner resource leaks via lifecycle-aware coroutines. Scan speed improved **3x** with thumbnail caching. APK size reduced by **22%** removing unused ML model binaries. Crash-free rate improved from 96.1% to **99.4%**.

## PROJECTS

### MEDHA — On-Device AI Chat Application

- Built a dual-engine AI assistant with **offline mode** (Gemma 2B via MediaPipe GPU Int4) and **online mode** (Gemini API), enabling private on-device LLM inference with zero data collection. Multi-key API failover, Grand Master AI personas, 22+ quick action templates.
- **Tech Stack:** Kotlin, Jetpack Compose, MediaPipe, Gemini API, Koin, Room, Material 3, MVVM

### Chitra — Cross-Platform Wallpaper Engine (Android, Desktop, Web)

- Architected a Compose Multiplatform app running on **Android, Desktop (JVM), and Web (Wasm/JS)** from a single Kotlin codebase. Offline-first sync with Cloudflare R2 CDN, 100% shared UI via Voyager navigation, Coil 3 image loading.
- **Tech Stack:** Kotlin, Compose Multiplatform, Ktor, Coil 3, Koin, Voyager, Cloudflare R2, Material 3

### ZeroClawAndroid — AI Agent Daemon

- Engineered an always-on Android foreground service connecting Telegram and WhatsApp (via Twilio) to multiple LLMs with **automatic waterfall failover** and Cloudflare Tunnel for secure remote access.
- **Tech Stack:** Kotlin, Foreground Services, Telegram API, Twilio, Ktor, Cloudflare Tunnel, Multi-LLM Orchestration

### ANTAR — Device Info & Analytics

- Built a device analytics app with real-time StateFlow streams for 44+ hardware sensors, dual SIM detection, battery health gauges, GPS satellite tracking, and full network deep scan. Custom Compose Canvas charts.
- **Tech Stack:** Kotlin, Jetpack Compose, Custom Canvas, SensorManager, TelephonyManager, Clean Architecture

### ProPlayer — Video Player | WeatherShow KMP — Cross-Platform Weather App

- **ProPlayer:** Modern video player with gesture controls, PiP, subtitles, playlists. 100% Compose + MVVM + ExoPlayer/Media3.
- **WeatherShow KMP:** Cross-platform weather app (Android, iOS, Web) using Kotlin Multiplatform with shared business logic. Deployed to Vercel.
- **Tech Stack:** Kotlin, KMP, Compose Multiplatform, ExoPlayer/Media3, Ktor, Koin, Room

## EDUCATION

### Institute of Aeronautical Engineering

Hyderabad, India

Bachelor of Technology, Electronics & Communication Engineering | 2015 – 2019