MANOJ KUMAR R

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NMS Nagar, Madurai, Tamil Nadu

SENIOR ANDROID DEVELOPER

Senior Android Developer with 5 years of experience building high-performance, hardware-integrated mobile applications across automotive, IoT, healthcare, and embedded systems. Proven track record delivering 10+ production apps, driving performance optimizations, mentoring developers, and leading end-to-end technical solutions for enterprise and OEM clients. Adept at system design, architectural decision-making, and cross-functional collaboration.

EXPERTISE AND STRENGTHS

- **Languages**: Kotlin, Java, C/C++ (JNI/NDK)
- **Architecture & Design**: MVVM, Clean Architecture, DI (Dagger/Hilt), Repository Pattern
- **Android**: Jetpack (ViewModel, LiveData, Room, Navigation), Coroutines, WorkManager, Material Design, Custom Views
- **Testing & DevOps:** JUnit, Espresso, Mockito, Git, GitLab/GitHub, CI/CD Pipelines
- **Connectivity & Protocols**: BLE, WiFi, WebSocket, SignalR, Retrofit
- **Specialized**: AOSP, Sensor Integration, Automotive OS, WebRTC, ARCore, TensorFlow Lite, Firebase, Android Profiler, Google Cloud Platform, Vehicle HAL

- Technical Leadership and Mentorship
- Agile Methodologies
- Code Reviews and Best Practices Enforcement
- System Design and Architecture
- Project Estimation and Resource Planning
- Team Collaboration
- Adaptability
- Continuous Learning

PROFESSIONAL EXPERIENCE

Embien Technologies Pvt Ltd.   **September 2023 - Present**
Module Lead - Applications

- Lead a team of 4 Android engineers delivering automotive, IoT, and enterprise apps: owned architecture, code reviews, and sprint planning.
- Drove adoption of Clean Architecture and MVVM across client projects through code reviews, reducing technical debt by 30% and improving maintainability scores.
- Designed solutions for complex connectivity challenges (BLE, Wi-Fi, WebSocket, real-time streaming), improving system stability across OEM deployments.
- Designed and deployed AOSP-based EV cluster HMI to 50+ production units integrating real-time CAN bus data via custom NDK/JNI bridge, achieving <100ms latency requirements.
- Engineered Wi-Fi-based map mirroring with dual-mode frame capture; enhanced smartphone–vehicle integration for navigation continuity.
- Led feasibility analysis and estimations for 10+ initiatives, influencing product roadmap and resource planning.
- Mentored 3 junior developers on Android fundamentals, connectivity protocols, and architecture patterns, accelerating onboarding time by 40%

Embien Technologies Pvt Ltd.   **February 2021 - August 2023**
Design Engineer - Applications

- Delivered 7 production Android applications across IoT, automotive, and healthcare domains with 95%+ QA conformance.
- Built BLE-driven automotive companion app with real-time vitals and custom animated UI components.
- Developed a medical device hub integrating 3+ third-party SDKs, reducing onboarding failures and support escalations by 40%.
- Designed PQC-based secure chat features using liboqs and resolved WebRTC frame scrambling through optimized padding logic.
- Promoted to Module Lead within 2.7 years for technical excellence and consistent high-impact delivery

Aquasub Engineering   **December 2017 - November 2019**
Electrical Maintenance Engineer

- Managed critical electrical systems and ensured continuous uptime while transitioning into embedded and Android development.

KEY PROJECTS

Smart Automotive Management Platform | Module Lead & Architect

- Architected notification mirroring for 8+ social media platforms (WhatsApp, Facebook, Instagram, Teams, Snapchat, X, Threads, Skype) via NotificationListenerService
- Engineered WiFi-based map mirroring using socket programming with dual-mode frame capture (native SDK + ScreenCapture API)

Life Care Connect - Nurse Call Application | Senior Developer (Honeywell Contract)

- Developed SignalR real-time notification system with SIP-based VoIP calls and QR-code dynamic endpoint configuration
- Successfully navigated 3 management transitions while earning commendations from all stakeholders

Thingsboard IoT Platform Clone | Module Lead & Architect

- Engineered innovative AR onboarding experience improving installation accuracy and reducing setup time for IoT gateway configuration
- Developing on-device ML models for real-time anomaly detection in time series IoT event data reducing cloud dependency through local inference.

EDUCATION

Bachelor of Electricals and Electronics Engineering
University College of Engineering, Ramnad | 2013 -2017 | CGPA: 7.43/10

Higher Secondary Education
Royal Vidhyalaya Higher Secondary School, Madurai | 2011 – 2013 | 90%

AWARDS AND RECOGNITION

Certificate of Appreciation | Embien Technologies Pvt Ltd | 2023
Recognized for extraordinary contributions and technical excellence in Android application development