

# ABHISHEK GIRI

Senior Android & React Native Engineer

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LinkedIn — Portfolio

## PROFESSIONAL SUMMARY

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Senior Mobile Application Engineer and Technical Lead with 6+ years of experience designing, architecting, and delivering scalable, secure, and high-performance mobile platforms using Native Android (Kotlin, Java) and React Native. Proven expertise in leading end-to-end mobile architecture, defining technical strategy, and delivering enterprise mobility solutions across government, ERP, CRM, POS, and workforce automation systems.

Specialized in system-level Android development, hybrid mobile architecture, background execution frameworks, and hardware integrations. Strong track record of leading engineering initiatives, mentoring developers, and driving technical decisions across large-scale production deployments.

### **Leadership Impact:**

- Led architecture design and technical delivery for large-scale mobile platforms including SymphonyX, TargetX CRM, and LSDiscovery.
- Owned end-to-end mobile system architecture from design through production deployment.
- Guided engineering teams on architecture standards, performance optimization, and secure development practices.
- Delivered enterprise mobility systems deployed across statewide government infrastructure.
- Improved operational response and discovery time by 40%
- Implemented highly reliable background execution systems for always-on BLE monitoring environments.

## CORE TECHNICAL SKILLS

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**Mobile Development Frameworks:** Android SDK, React Native, Jetpack Compose, Material Design, XML Layouts

**Programming Languages:** Kotlin, Java, JavaScript (ES6+), TypeScript

**Architecture & Design Patterns:** Clean Architecture, MVVM, MVI, Repository Pattern, Multi-Module Architecture, Scalable Mobile Architecture Design, System Design

**Background Processing & System Execution:** WorkManager, AlarmManager, Foreground Services, Broadcast Receivers, Headless JS, Background Execution Limits, Battery Optimization Strategies

**Hardware & Device Integrations:** Bluetooth Low Energy (BLE), Beacons, RFID, USB Devices, Thermal Printers, Weighing Scales, Telephony APIs, Device Policies, Runtime Permissions

**React Native Ecosystem:** React Navigation, Redux, Redux Toolkit, Context API, React Hooks, Async Storage, Axios, React Query, Native Modules (Kotlin-JS Bridge), Platform-specific UI Optimization

**Networking & Data Management:** REST APIs, JSON, SQLite, Room, Offline Synchronization, Data Caching, Repository Pattern

**Security & Compliance:** VAPT, OWASP Mobile Top 10, MASVS, SSL Pinning, Root Detection, Secure Storage (Keystore / Encrypted Storage), ProGuard / R8, Data Encryption

**Testing & Quality Assurance:** Unit Testing, Integration Testing, Jest, React Native Testing Library, Debugging, Performance Profiling

**Performance Optimization Tools:** Hermes Engine, Flipper Debugging, Memory Optimization, Crash Reporting (Firebase Crashlytics), Log Monitoring

**DevOps & Deployment:** CI/CD Pipelines, GitHub Actions, Fastlane, Android App Signing, Play Store Deployment, Build Automation

**Tools & Platforms:** Android Studio, Gradle, Git, Firebase, OneSignal, Google Play Console, MobSF, Postman

**Development Practices:** Agile / Scrum, Code Reviews, Technical Leadership, Architecture Governance, Performance Optimization, Production Deployment

## PROFESSIONAL EXPERIENCE

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**Libsys Ltd** *Senior Mobile Engineer | Technical Lead* Aug 2022 – Present

- Led mobile architecture strategy and technical implementation for enterprise-scale Android and React Native platforms.
- Designed and governed scalable system architecture for SymphonyX, TargetX CRM, and LSDiscovery platforms.
- Provided technical leadership across design, development, testing, and production deployment phases.
- Mentored developers, conducted architecture reviews, and established engineering best practices.
- Designed hybrid Android–React Native architecture using Native Modules exposing system-level APIs.
- Implemented WorkManager, Headless JS, Broadcast Receivers, and Foreground Services enabling reliable execution even when apps are killed or devices are locked.
- Developed BLE Beacon-based proximity attendance system with battery-optimized scanning and continuous monitoring.
- Integrated push notification frameworks and automated workflow triggers.
- Built secure off-campus access solution improving response and discovery time by 40%.
- Conducted VAPT assessments and enforced secure mobile development standards aligned with OWASP MASVS.
- Led performance optimization initiatives and production deployment planning.
- Collaborated with stakeholders to translate business requirements into scalable technical solutions.

**CMS Computers Ltd (NIC Project)** *Mobile Application Developer* Oct 2020 – Jul 2022

- Developed Android and POS applications for Uttar Pradesh State Agricultural Produce Markets Board.

- Integrated Bluetooth and USB hardware including weighing scales and thermal printers for real-time transaction processing.
- Implemented secure transaction workflows with encrypted communication and offline-first architecture.
- Built data synchronization mechanisms using SQLite and Room for low-connectivity environments.
- Supported statewide production deployment across multiple mandis ensuring high system availability.

**SISL Infotech Pvt Ltd (NIC Project)** *Android Developer* Aug 2019 – Sep 2020

- Built offline-first Android applications for rural and low-network environments.
- Migrated legacy Java codebases to Kotlin improving stability and maintainability.
- Delivered government-compliant mobile solutions aligned with NIC operational and security standards.

## **PROJECT HIGHLIGHTS**

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### **SymphonyX – Bluetooth Attendance Workforce Automation Platform**

**Tech Stack:** React Native, Kotlin, Android SDK, BLE, WorkManager, Headless JS, REST APIs, SQLite

#### **Leadership Architecture Ownership**

- Served as technical lead and primary architect for the mobile platform.
- Defined system architecture, module boundaries, and integration strategy.
- Established development standards, performance benchmarks, and deployment pipelines.
- Guided engineering implementation and conducted technical reviews.

#### **Key Contributions**

- Designed and implemented hybrid React Native + Native Android architecture using Native Modules.
- Built BLE-based proximity attendance system with battery-optimized continuous background scanning.
- Implemented AlarmManager → BroadcastReceiver → ForegroundService → BLE Scan → Headless JS execution pipeline.
- Enabled reliable background execution even when application is terminated or device is locked.
- Developed scalable workforce automation features including attendance tracking and device discovery.
- Optimized performance and battery consumption for long-running background operations.
- Implemented secure device communication and background data synchronization.
- Set up push notifications using Firebase Cloud Messaging (FCM).
- Used Firebase Crashlytics for real-time crash monitoring and stability improvements.
- Implemented CI/CD pipeline using Fastlane and GitHub Actions.

## **TargetX CRM – Admissions Lead Management Platform**

**Tech Stack:** Android, Kotlin, REST APIs, MVVM Architecture, SQLite, Room

### **Key Contributions**

- Led architecture design for scalable CRM mobile platform.
- Developed scalable CRM modules for lead lifecycle management and workflow automation.
- Integrated REST APIs for real-time data synchronization and reporting.
- Implemented structured data handling using MVVM architecture and repository pattern.
- Optimized performance for large datasets and concurrent operations.
- Implemented secure authentication and encrypted local data storage.
- Used Firebase Crashlytics for real-time crash monitoring.
- Implemented CI/CD pipeline using Fastlane and GitHub Actions.
- Set up push notifications using OneSignal.

## **LSDiscovery – Academic Search Platform**

**Tech Stack:** Android, Kotlin, REST APIs, MVVM Architecture, Retrofit, Room

### **Key Contributions**

- Designed scalable architecture for high-volume academic search and retrieval.
- Developed Android modules for large-scale academic data search.
- Implemented efficient API communication and response handling.
- Improved application performance and responsiveness.
- Enhanced scalability for growing academic datasets.

## **Government POS Market Management System (NIC – UP State)**

- Developed Android POS applications integrating Bluetooth weighing scales and thermal printers.
- Implemented offline-first transaction workflows for low-connectivity environments.
- Designed encrypted local storage and secure communication protocols.
- Built synchronization mechanisms for centralized reporting systems.
- Supported statewide deployment across multiple government locations.
- Ensured compliance with government operational and security standards.

## **EDUCATION**

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**Master of Computer Applications (MCA)** Babasaheb Bhimrao Ambedkar University  
2016 – 2019

**Bachelor of Computer Applications (BCA)** University of Lucknow 2013 – 2016