

UWEM FIDELIS JOSEPH

Senior Android Engineer | Remote

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PROFESSIONAL SUMMARY

Senior Android Engineer with **6+ years of experience** architecting and delivering production-grade native mobile applications using **Kotlin** and modern Android practices. Specialized in **healthcare, automotive, and e-commerce platforms** with advanced features including **computer vision (MediaPipe, ML Kit), Bluetooth Low Energy (BLE) device integration, AI-powered object recognition, and real-time data processing**. Proven track record of optimizing app performance by **70%**, improving user retention by **45%**, and delivering scalable mobile solutions used by **500K+ users** across healthcare, automotive retail, and inventory management sectors.

IMPACT HIGHLIGHTS

500K+ patient monitoring sessions supported	85% ML model accuracy across 30K+ LEGO® parts
65% battery consumption reduction (BLE optimization)	99.7% crash-free rate maintained (Firebase)
99% barcode scan success rate	95% manual data entry errors eliminated via OCR
55% video file size reduction, HD quality preserved	70% reduction in regression bugs through automated testing

TECHNICAL EXPERTISE

Mobile Development: Kotlin · Android SDK · Jetpack Compose · XML Layouts · Coroutines · Flow

Architecture & Patterns: Clean Architecture · MVVM · MVI · Repository Pattern · Hilt · Koin

Computer Vision & ML: MediaPipe · Google ML Kit · TensorFlow Lite · Custom ML Models · Pose Detection

Hardware Integration: Bluetooth Low Energy (BLE) · WiFi Connectivity · External Sensors · Printer APIs

Backend & APIs: Retrofit · OkHttp · GraphQL · REST · WebSocket · gRPC

Storage & Background: Room · SQLite · DataStore · WorkManager · Foreground Services · JobScheduler

Camera & Imaging: CameraX · Camera2 API · OpenCV · OCR · Image Recognition

Testing & DevOps: JUnit · Espresso · MockK · Firebase Test Lab · GitHub Actions · Fastlane · Gradle

PROFESSIONAL EXPERIENCE

Senior Android Engineer — E-Commerce / Inventory Management

BrickWorks · USA (Remote, Contract) · Nov 2024 – Dec 2025

BrickLink inventory management platform for LEGO® sellers and collectors with AI-powered brick recognition.

- Developed Kotlin inventory management app with **AI object recognition** ("Bricognize") for automatic LEGO® part identification, serving **50K+ active users** managing **10M+ inventory items**.
- Implemented **TensorFlow Lite custom ML model** for real-time brick recognition from camera feed, achieving **85% first-try accuracy** across **30K+ unique parts**.
- Built WiFi printer connectivity module for thermal label printers, reducing labeling time by **80%** and eliminating manual errors.
- Engineered barcode scanning system via **ML Kit Barcode Scanning API**, processing **500K+ scans monthly** at **99% success rate**.
- Designed WorkManager background worker architecture for inventory sync, price updates, and order processing — handling **100K+ daily tasks**.
- Built sophisticated search and filtering engine with full-text search and multi-criteria filtering, improving product discovery by **65%**.
- Implemented **local-first architecture** with Room database ensuring offline operation with intelligent conflict resolution on reconnection.
- Optimized image loading (Coil), reducing memory usage by **50%** and eliminating image-related crashes.

Stack: Kotlin · TensorFlow Lite · ML Kit · WiFi Connectivity APIs · WorkManager · CameraX · Room · MVVM · Coroutines · Hilt · Retrofit

Senior Android Engineer — Healthcare / Digital Health

Bodynetic · Singapore (Remote, Contract) · Jul 2023 – Nov 2023

AI-powered posture analysis and corrective exercise platform targeting 1M+ users for chronic pain prevention.

- Architected **MediaPipe-powered posture analysis app** delivering **100K+ posture assessments** with clinical-grade accuracy.
- Integrated **Google MediaPipe Pose Landmarker** for real-time skeletal tracking and joint angle calculation — detecting **33 body landmarks at 30 FPS** on mid-range devices.
- Developed AI exercise correction system providing real-time form feedback, improving exercise effectiveness by **55%**.
- Implemented posture scoring algorithm analysing **15+ postural parameters** including forward head posture, shoulder alignment, spinal curvature, and pelvic tilt.
- Created professional PDF report generation with posture analysis, comparison charts, progress tracking, and personalised exercise recommendations.
- Engineered background video processing (Coroutines + WorkManager), delivering analysis results within **60 seconds** of recording.
- Optimized CameraX frame processing, reducing battery consumption by **40%** during active sessions.
- Implemented **HIPAA-compliant data storage** with encrypted local DB and secure cloud synchronization.
- Established automated testing suite (JUnit + Espresso) achieving **85% code coverage**, reducing regression bugs by **70%**.

Stack: Kotlin · MediaPipe · CameraX · TensorFlow Lite · Coroutines · Room · WorkManager · Clean Architecture · Hilt · Firebase ML Kit

Senior Android Engineer — Automotive Technology

CitNOW · UK (Remote, Contract) · Jul 2022 – Jun 2023

Video communication platform for automotive retail used by 43+ car manufacturers including BMW — 1M+ monthly video productions.

- Built Kotlin video capture app with **ML Kit OCR**, automatically identifying VIN numbers, license plates, and damage at **82% accuracy**.
- Developed advanced camera interface with real-time image quality analysis, reducing unusable footage by **70%**.
- Engineered custom video encoding pipeline reducing file sizes by **55%** while maintaining HD quality — upload time from **3 minutes to 45 seconds** on 4G.
- Built real-time text recognition for odometer displays, service stickers, and vehicle documents, eliminating **95% of manual data entry errors**.
- Designed modular feature architecture (Sales, Workshop, Imaging) reducing app size by **40%** through dynamic feature delivery.
- Implemented offline video queue management with WorkManager ensuring **zero data loss** during network interruptions.
- Integrated dealership management system (DMS) APIs across **5,000+ automotive retailers**.
- Established CI/CD pipeline reducing release cycle from **2 weeks to 3 days**.

Stack: Kotlin · Google ML Kit · OCR · CameraX · ExoPlayer · WorkManager · Retrofit · MVVM · Hilt · Coroutines · Room · Firebase

Senior Android Engineer — Healthcare / Medical Devices

Isansys Lifecare · India/UK (Remote, Contract) · Jan 2021 – Jun 2022

FDA-cleared wireless patient monitoring platform serving Apollo, Fortis, Max Healthcare, and NHS facilities.

- Architected Kotlin app integrating **BLE medical sensors** for real-time vital signs monitoring across **500K+ patient monitoring sessions**.
- Engineered real-time data sync (Coroutines + Flow) processing **heart rate, SpO2, ECG, respiration, temperature, and blood pressure** from multiple sensors simultaneously at **<100ms latency**.
- Built custom BLE device discovery and pairing system handling **15+ concurrent sensor connections** with automatic reconnection and signal strength monitoring.
- Developed HIPAA-compliant secure data transmission with **AES-256 encryption** end-to-end between sensors, mobile gateway, and cloud.
- Created Early Warning Score (EWS) alerting system reducing false positives by **80%** and improving clinical response times.
- Optimized battery consumption by **65%** through intelligent sensor polling, enabling **24+ hour continuous monitoring** on a single charge.
- Integrated Firebase Crashlytics achieving **99.7% crash-free rate** and reducing critical bugs by **90%**.
- Mentored junior Android developers on BLE integration patterns, Coroutines best practices, and medical device software development standards (IEC 62304).

Stack: Kotlin · Android SDK · Bluetooth Low Energy (BLE) · Clean Architecture · Coroutines · Flow · Room · MVVM · Hilt · Jetpack Compose · Firebase

TECHNICAL SPECIALIZATIONS

Computer Vision & ML: Expert integration of MediaPipe, ML Kit, and TensorFlow Lite for real-time image processing, pose detection, object recognition, and OCR in production apps.

Bluetooth & Hardware: Deep expertise in BLE protocol, GATT services, sensor data streaming, and reliable connections with medical devices and IoT hardware.

Performance Optimization: Proven track record optimizing battery life, memory usage, network efficiency, and rendering performance at sustained 60 FPS.

Architecture & Scalability: Clean Architecture, MVVM/MVI, and modular design enabling large-scale apps with independent feature development and testing.

EDUCATION & PROFESSIONAL DEVELOPMENT

Bachelor of Engineering (B.Engr.) — Electrical/Electronics Engineering · University of Uyo

Specialized Training: Advanced Android Development with Kotlin (Google) · Machine Learning for Mobile Developers (TensorFlow) · Bluetooth Low Energy (BLE) Protocol & Integration · Medical Device Software Development Standards (IEC 62304) · Clean Architecture & SOLID Principles · Advanced Coroutines & Flow Patterns

AVAILABILITY

Available for **Senior Android Engineer** roles focusing on computer vision, ML integration, hardware connectivity, and high-performance mobile applications. Open to remote opportunities in **healthcare, automotive, fintech, or consumer technology**. Open to relocation for the right opportunity — currently based in Nigeria, available globally.