

# Michael Samuel Naeem

Senior / Staff Android Engineer | Mobile Architect | EV Infrastructure • Robotics • Real-Time Systems

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## PROFESSIONAL SUMMARY

Android Engineer and Architect with **10+ years** delivering production mobile systems across robotics, EV infrastructure, fintech, and real-time streaming. Architected the **Android platform for NEOM City's humanoid robotics deployment** and delivered a full-stack **EV Charging Management Platform** (IoT + WebSocket + mobile). Expert in Kotlin, Jetpack Compose, and Clean Architecture. Led cross-functional teams, defined engineering standards, and consistently shipped at scale.

## CORE TECHNICAL SKILLS

**Mobile:** Kotlin · Java · Jetpack Compose · Android SDK · XML · Material Design 3 · Android TV (Leanback) · Flutter/Dart

**Architecture:** Clean Architecture · MVVM · MVP · SOLID · Multi-module · Dependency Inversion · Domain-Driven Design

**Jetpack:** ViewModel · LiveData · Room · Navigation · WorkManager · DataStore · Paging 3 · CameraX

**Async & DI:** Coroutines · Flow · RxJava · Hilt · Dagger 2 · Koin

**Networking:** Retrofit · OkHttp · GraphQL · WebSocket · REST · gRPC · OCPP v1.6

**Media & IoT:** ExoPlayer · WebRTC · STT/TTS · Robot SDKs (CRUZR, Pepper) · Google Maps SDK

**AI & Emerging:** OpenAI API (GPT-4) · Intent Recognition · Blockchain · Web3 · Smart Contracts

**Firebase:** Crashlytics · Analytics · Cloud Messaging (FCM) · Remote Config · Realtime Database

**DevOps & QA:** Git · GitHub · GitLab · Jenkins · Gradle · Play Store · CI/CD · JUnit · Mockito · Espresso

## WORK EXPERIENCE

### Tech Lead • Tadafuq

Jun 2024 – Present | Cairo · On-site

- Architected a full-stack EV Charging Management Platform — Python/OCPP v1.6 CMS backend, Node.js WebSocket real-time middleware, and Flutter mobile app — coordinating a cross-functional team of 6 engineers across backend, mobile, and infrastructure.
- Designed a P2P local-network remote control system using socket-based communication achieving sub-100ms screen synchronization latency over LAN; deployed across 2 live EV station networks.
- Defined scalable system architecture standards adopted across 3 concurrent product lines, reducing cross-team integration issues by ~40% and cutting sprint blocker rate by half.
- Led end-to-end Flutter mobile delivery with real-time WebSocket + REST integration; shipped on schedule with zero critical post-launch defects.
- Drove technical strategy across backend, mobile, and IoT layers — evaluating protocol trade-offs (OCPP vs MQTT), recommending infrastructure tooling, and producing an ADR (Architecture Decision Record) framework adopted by all engineering squads.

### Senior Android Developer • Communico

Jun 2023 – Jun 2024 | Remote

- Built Android applications powering CRUZR and Pepper humanoid robots deployed at NEOM City, serving thousands of daily visitor interactions in one of the world's most advanced smart-city environments.
- Integrated GPT-4 (OpenAI API) for intent recognition and context-aware dialogue, enabling robots to autonomously handle guest queries, booking, and spatial guidance — achieving a 35% reduction in fallback-to-human escalations.
- Engineered end-to-end STT/TTS voice pipelines and touchscreen interfaces for human-robot interaction, deployed live in a high-traffic public environment.

- Integrated 4+ robot SDK sensor and hardware modules; maintained 99%+ platform uptime across all NEOM City venue deployments.

### Senior Android Developer • Mazaady

Jun 2022 – Jun 2023 | Remote

- Led Android development of Doworkss, a service marketplace with 240+ categories built on Jetpack Compose and MVVM Clean Architecture; delivered MVP with a 2-engineer team in under 3 months.
- Maintained a live auction platform with real-time audio/video streaming (ExoPlayer + WebRTC) serving 120k+ monthly active users; drove a 20% increase in session engagement through UX and stability improvements.
- Improved app performance by 15% and reduced ANR rate to below 0.1% through systematic profiling, memory leak resolution, and coroutine-based architecture refactoring.
- Authored blockchain-based identity verification feasibility report; findings adopted into the product roadmap for a future release cycle.

### Senior Android Developer • Rowaad

Sep 2020 – May 2022 | Cairo · Hybrid

- Led a remote agile team of 4 Android engineers across 3 product releases; introduced code review standards and PR templates that improved code quality scores by 30% and reduced defect escape rate significantly.
- Mentored 2 mid-level Android developers; both were promoted to senior roles within 18 months of joining the team.
- Achieved 99.9% crash-free rate across all production builds via robust error handling, structured Coroutine scoping, and Firebase Crashlytics monitoring.
- Migrated legacy MVP codebase to MVVM + Clean Architecture across 15+ feature modules, improving testability by 30% and reducing developer onboarding time from 3 weeks to 1 week.
- Enforced TDD practices across the team using JUnit + Mockito unit tests and Espresso UI tests, achieving ~70% unit test coverage on core business logic; reduced regression defects by ~40%.

### Mobile Developer • Ready Apps

Apr 2018 – Aug 2020 | Cairo · On-site

- Built a Firebase + Google Maps pharmacy locator serving 50k+ users across 100+ branches; reduced average customer search time by 50% and increased daily active users by 10% within 3 months of launch.
- Developed inventory and sales monitoring apps handling real-time transactional data for 100+ pharmacy locations; reduced manual reporting effort by an estimated 60%.
- Delivered 5+ end-to-end Android applications across health, retail, and logistics domains.

### Android Developer • EME International

Oct 2017 – Mar 2018 | Cairo · On-site

- Developed bus reservation module for myFawry eWallet processing 10,000+ monthly transactions with integrated hardware printer support and multi-flavor banking application builds.
- Integrated ERP systems with POS hardware peripherals; maintained smart wallet app for 3 banking clients.

### Android Developer • Pan Arab Media

Sep 2016 – Sep 2017 | Cairo · On-site

- Developed and published an e-commerce Android application end-to-end, covering product catalog, cart, and checkout flows.
- Built an Android TV client using the Leanback library for an online video platform with 10-foot UI optimized for remote navigation.

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## EDUCATION

### Bachelor of Science in Computer Science

Faculty of Computer and Information — Cairo University

2012 – 2016

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## **CERTIFICATIONS**

- Android Developer Nanodegree — Udacity (2017)
  - Mobile Application Launchpad — MCIT & Google via Udacity (2016)
  - Blockchain Fundamentals — In Progress (2025)
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## **IMPACT AT A GLANCE**

- 10+ years Android engineering expertise across 6+ companies and domains
- 120k+ MAU on live auction platform (Mazaady)
- 99.9% crash-free rate sustained across production builds (Rowaad)
- NEOM City robotics Android platform — humanoid robot deployments serving thousands of daily interactions
- 50% search time reduction and 50k+ users on pharmacy locator platform (Ready Apps)
- Full-stack EV Charging Platform architected and delivered end-to-end (Tadafuq)