

MUHAMED AMIN HASSAN

Android & Flutter Mobile Engineer

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GitHub | LinkedIn | Portfolio

PROFESSIONAL SUMMARY

Android & Flutter Mobile Engineer with 1 year of professional industry experience and a robust portfolio of production-grade applications. Expert in Kotlin (Jetpack Compose, Coroutines, Hilt) and cross-platform Flutter (BLoC, Clean Architecture, Supabase). Proven track record of shipping complex features, including Media3 playback engines with 80%+ test coverage and AI-powered recommendation systems. Focused on building high-performance, architecturally sound mobile solutions.

WORK EXPERIENCE

Android Developer Intern — Zimozi Solutions

Aug 2022 – Feb 2023

- Delivered 2 production applications (Evegene Quiz, Claim Exchange) in Kotlin/MVVM, reducing code complexity by 30% through modular Clean Architecture decomposition.
- Implemented Dagger Hilt dependency injection and engineered 10+ reusable Jetpack Compose components, cutting feature development time by approximately 25%.
- Optimized 5+ REST API integrations with Retrofit, reducing API response processing overhead by up to 35%.
- Contributed Kotlin/JS components for cross-platform Web & Mobile synchronization, eliminating 40% of UI inconsistencies across platforms.

EDUCATION

B.Sc. Computer Science & Information Systems

Sep 2020 – Jul 2024

Ain Shams University, Cairo, Egypt

PROJECTS

Pulse — Mood-Aware Social Chat App

Jun 2026 – Present

Stack: Flutter · Dart · BLoC/Cubit · Firebase (Auth, Firestore, FCM, Storage) · get_it · go_router · Hive · GitHub Actions

- Architected a feature-first social chat application** utilizing Clean Architecture to cleanly isolate domain logic across chat, groups, timeline, and authentication features.
- Engineered robust state management using BLoC/Cubit**, utilizing get_it and injectable for dependency injection and go_router for declarative navigation.
- Integrated Firestore for real-time messaging**, Firebase Auth, Firebase Cloud Messaging (FCM) for push notifications, and Hive for high-performance offline persistence.
- Built a custom, mood-coded UI engine** that dynamically updates message presentation based on emotional states, automated via a GitHub Actions CI/CD pipeline.

WealthWave — Flutter Fintech App

May 2026

Stack: Flutter · Dart · BLoC · Supabase · Clean Architecture · get_it/injectable · dartz

- Architected a full Clean Architecture fintech application with strict layer separation (data/domain/presentation) and functional error handling via Either<Failure, T> from dartz.
- Integrated Supabase backend with complete SQL schema design, Row Level Security policies, and auth service; wired dependency injection with get_it/injectable.
- Refactored the HomePage to a CustomScrollView with slivers, delivering smooth, performant scroll behavior across device tiers.

Wavora — Offline-First Music Player

Mar 2026

Stack: Android · Jetpack Compose · Media3/ExoPlayer · Hilt · Room FTS4 · WorkManager · GitHub Actions

- Engineered with a production-grade, offline-first music architecture** backed by 252 automated unit/integration tests achieving 80%+ coverage.
- Built a robust background playback service** using Media3/ExoPlayer, featuring reactive state propagation via Kotlin Coroutines and StateFlow.
- Resolved a critical MediaController async race condition**, optimizing UI rendering performance by up to 40%.

ReadMate — E-Book Platform

Oct 2024 – Dec 2024

Stack: *Android · MVVM · Clean Architecture · Firebase · Retrofit*

- Built a scalable digital reading platform with Firebase Auth, Firestore, Cloud Messaging, and offline reading support.
- Implemented personalized book recommendation logic and a complete in-app purchasing flow.

TECHNICAL SKILLS

Android Development: Kotlin · Jetpack Compose · XML · Hilt · Koin · Coroutines · Flow · Channels · Retrofit · Ktor · Room · Paging · DataStore · WorkManager · Media3/ExoPlayer · Firebase

Flutter Development: Flutter DevTools · Dart · BLoC/Cubit · Provider · Riverpod · Dio · get_it/injectable · go_router · Supabase · Firebase

Architecture & Patterns: Clean Architecture · MVVM · Repository Pattern · Modularization · SOLID Principles

Testing & DevOps: JUnit · Mockito · GitHub Actions (CI/CD) · Git · Gradle (Kotlin DSL) · Android Studio

AI-Assisted Development: Advanced Prompt Engineering · Antigravity · Claude AI Integration

VOLUNTEERING

Android Developer — MSP Student Activity — Ain Shams University

Nov 2021 – May 2022

- Built the Galaxy App (Java/MVVM) featuring Room Database, LiveData, and a full CRUD system with an interactive UI.