Mohamed Shalan

Senior Mobile Software Engineer

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PROFESSIONAL SUMMARY

Senior mobile engineer with 9+ years building and scaling native Android applications in Kotlin, plus cross-platform delivery with Flutter and Kotlin Multiplatform. At HungerStation (Delivery Hero), delivered the HungerStation subscription (HPlus) service, scaling to 10M+ subscribers and 100M+ orders. Over the past year has also defined the mobile organisation's AI engineering direction: auditing AI-readiness across four codebases in four languages, architecting agent-skill governance, and designing Figma-to-code design system automation, authoring 20+ RFCs and ADRs reviewed by AI Enablement, InfoSec, and Engineering Leadership.

SKILLS

Languages: Kotlin, Java, Dart, TypeScript, SQL

Android: Jetpack Compose, Android SDK, Coroutines, Flow, Jetpack (ViewModel, Navigation, Room, WorkManager), Material Design, Android TV

Cross-Platform: Kotlin Multiplatform (KMP), Flutter, Bloc

Architecture: MVVM, MVI, MVP, Clean Architecture, Multi-Module Architecture, Dependency Injection (Dagger), Design Patterns, SOLID

Networking & Data: Retrofit, OkHttp, GraphQL, Apollo, REST APIs, Room, Firebase

Testing: Unit Testing, JUnit, MockK, Espresso, UIAutomator, Flank, Firebase Test Lab, UI Test Automation

AI Engineering: LLM Agents, Model Context Protocol (MCP), Claude Agent SDK, Agent Skills Specification, RAG, Vertex AI, Agent Evaluation & Guardrails, Prompt and Context Engineering

DevOps & Tooling: CI/CD, GitHub Actions, Bitrise, GitLab CI, Gradle, Git, Docker, Node.js, Style Dictionary, Firebase Performance Monitoring

Practices: Technical RFCs & ADRs, Architecture Review, Agile, Scrum, Code Review, Technical Mentorship, Performance Optimization

PROFESSIONAL EXPERIENCE

HungerStation (Delivery Hero) — Senior Mobile Software Engineer

Dubai, UAE | Oct 2023 – Present

AI Engineering & Developer Platform

- Built a re-runnable AI-readiness assessment framework (10 weighted categories, fixed scoring rubric) and applied it across four production codebases in four languages — Kotlin (93 Gradle modules, 4,600+ files), Swift (40+ modules), Flutter, and Go — producing per-repo RFCs and a consolidated recommendation for Engineering Leadership.
- Documented test-coverage gaps on revenue-critical paths and non-blocking CI guardrails across all four repos, and drove an automated secret-scanning remediation plan.
- Authored an AI infrastructure audit of the Android and iOS codebases identifying seven systemic risks, including catalogued rule contradictions across three coexisting AI assistants. Measured AI scaffolding overhead at 10–12% of the model context window and proposed consolidating 33 agent skills to a verified catalogue of ~10.
- Designed the organisation's agent-skill governance framework (RFC plus five ADRs, all accepted by AI Enablement), defining four CI quality gates across six stack repositories, delivered as reusable GitHub Actions workflows. Established the principle that deterministic checks block merges while model-backed checks advise, with a calibration-gated path to promotion.
- Architected a Node.js skill installer CLI bringing npm-style reproducibility to AI agent skills across four vendor tools (Claude Code, Cursor, Copilot, Gemini CLI): lockfile pinning to immutable commit SHAs with checksum verification, and partial-clone fetching for offline installs. Selected in-house over two third-party options on documented supply-chain and privacy grounds.
- Architected a Figma-to-multiplatform design system pipeline for Android, iOS, and Flutter, separating a deterministic token sync (DTCG JSON, Style Dictionary, auto-generated PRs) from AI-assisted component generation, with explicit anti-hallucination controls that fail the run rather than invent values. Authored the InfoSec security review intake and is named on-call owner.
- Created and presented an internal engineering series on applied AI, covering how LLMs, MCPs, agents, and skills compose as a layered system and comparing agent lifecycle hook patterns across three frameworks.

Product & Platform Engineering

- Led development of the HungerStation Plus (HPlus) subscription service, driving adoption to 10M+ subscribers and enabling 100M+ subscriber orders, reducing churn and improving customer retention.
- Owned the Rewards & Loyalty module end to end, designing scalable Android architecture and partnering with product to grow user engagement.

- Proposed and implemented performance monitoring using Firebase and JankStats to detect and reduce jank frames, measurably improving app responsiveness.
- Drove multi-module architecture evolution across the Android codebase, establishing clear module boundaries, shared UI testing utilities, and maintainable Gradle build pipelines.
- Initiated adoption of Flank with Firebase Test Lab to bring test sharding to the Android UI suite, enabling parallel execution across devices, and integrated the runs into Bitrise CI to cut regression feedback time.

Orange Innovation Egypt — Senior Mobile Software Engineer
Cairo, Egypt | Feb 2022 – Sep 2023

- Led the Kotlin migration across core Android projects, reducing the legacy Java codebase by 70% and improving maintainability and developer velocity.
- Delivered Android TV support for Orange Radio, expanding reach to a new platform.
- Designed and maintained CI/CD pipelines with GitLab CI, cutting release cycle time by 40%.
- Mentored and onboarded 5+ interns, 3 of whom converted to full-time engineers.

Robusta Studio — Senior Android Software Engineer
Cairo, Egypt | Jan 2019 – Feb 2022

- Architected and implemented a white-label e-commerce Android framework powering 10+ client apps and reducing time-to-market by 50%.
- Introduced modern Android practices including MVVM, GraphQL, and Apollo, improving developer productivity.

Bright Creations — Android Software Engineer
Cairo, Egypt | Aug 2017 – Dec 2018

- Delivered multiple native Android applications for enterprise clients under strict quality and deadline requirements.

CAPMAS — Java Developer
Cairo, Egypt | Dec 2016 – Jul 2017

- Developed the user interface of a desktop Java application visualizing results of the Egyptian national population survey.

SELECTED PROJECTS

- **Mobile Automator** (open source, Apache 2.0) — author of a host-agnostic Node.js CLI that lets any AI coding agent author and run mobile UI tests on devices and emulators, separating agent reasoning from deterministic execution and driving devices over MCP. Scenarios are portable JSON matched on visible text and semantic role rather than resource IDs, so one test runs on both Android and iOS. Ships Agent Skills for Claude Code, Cursor, Gemini CLI, Copilot, and OpenAI Agents. github.com/sh3lan93/mobile-automator
- **AI Pulse** — fully local AI news aggregation and scoring dashboard (n8n, Ollama with Mistral 7B and Llama 3 8B, SQLite, Vue 3, Express) with four automated workflows and a calibration feedback loop.

EDUCATION

B.Sc. in Computer Science — Faculty of Computers and Information, Menofia University, Egypt
Sep 2011 – Jul 2015