

Taoufik Bouabid

Senior Mobile Engineer & Tech Lead

iOS · Android · Kotlin Multiplatform

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Available for remote freelance missions worldwide · CET hours, overlapping UK, EU and Gulf teams

PROFILE

Senior iOS and Android developer and mobile tech lead with 10 years of shipping native apps end to end, from architecture to store release. Builds SwiftUI and Jetpack Compose apps on shared Kotlin Multiplatform cores, connects them to hardware over Bluetooth LE, Bluetooth Classic, Apple MFi and NFC, and delivers real-time chat and calls, Firebase backends and AI features. Mobile Tech Lead at VonRoll Hydro, freelance for private clients since 2020, and 5+ years on Wolters Kluwer enterprise apps. Works in English, French and Arabic.

KEY ACHIEVEMENTS

- Built VonRoll Hydro's LEAKAPP for iOS from an empty repository to **6 App Store releases**, connected to **4 field devices** over Bluetooth LE and Apple MFi.
- Sole developer of **Noy VPN on iOS and Android (\$90K+ in store revenue)** and sole iOS developer of **Oi AI Assistant (225K+ users)**.
- Designed the **Kotlin Multiplatform cores of 3 client apps** in 2026 (Nura, Youz, Vitlex), with **3,000+ shared unit tests**.
- 5+ years as iOS lead** of the dynamic forms SDK shared by 3 Wolters Kluwer (Enablon) enterprise apps.
- Shipped real-time products end to end: **encrypted chat, VoIP calls on LiveKit and CallKit**, AI moderation and LLM features.

SHIPPED APPS



SKILLS

iOS	Swift, SwiftUI, UIKit, Combine, Swift Concurrency, Objective-C, Core Data, GRDB, Realm, StoreKit 2, HealthKit, AVFoundation, Network Extension, WidgetKit, CallKit, PushKit
Android	Kotlin, Jetpack Compose, Coroutines & Flow, Hilt, Room, WorkManager, DataStore, Health Connect, Play Billing, Java
Cross-platform & web	Kotlin Multiplatform (SKIE, XCFrameworks), Ktor, Flutter (Riverpod), React, TypeScript, Next.js
Hardware & IoT	Bluetooth LE (Core Bluetooth, GATT, DFU), Bluetooth Classic (SPP, HFP), Apple MFi (External Accessory, iAP2), NFC (Core NFC, ISO 15693), u-blox, LWM2M
Real-time & APIs	Matrix, LiveKit, WebRTC, VoIP push, WebSocket, Socket.IO, SSE, REST, GraphQL, OData
Backend & AI	Firebase (Auth, Firestore, Cloud Functions, App Check, Remote Config, Crashlytics), Gemini on Vertex AI, OpenAI, Claude API, Cloud Vision
Security	OAuth 2.0 PKCE, Keychain & Keystore, Cloud KMS, HPKE & AES-GCM, App Attest & Play Integrity, VPN (WireGuard, OpenVPN)
Architecture & quality	Clean Architecture, MVVM, MVI, modularization, XCTest, Swift Testing, XCUITest, JUnit, MockK, Instruments, SwiftLint, Detekt, SonarQube
Delivery	fastlane, Xcode Cloud, GitLab CI, GitHub Actions, Azure DevOps, Bitbucket, TestFlight, Firebase App Distribution, App Store Connect, Google Play Console
Ways of working	Tech lead, code review, release management, specifications, Scrum, Jira, Confluence, Figma, AI-assisted development (Claude Code)

EXPERIENCE

Mobile Tech Lead | VonRoll Hydro

Feb 2025 – Present

Swiss leader in water network leak detection · LEAKAPP, field app for leak detection technicians on iPhone, iPad and Android ·

Remote, 3-engineer mobile team working with firmware, backend, QA and product teams in 4 countries App Store · Google Play

- Tech lead of a 3-engineer mobile team: architecture decisions, reviews of Android and shared Kotlin code, Definition of Ready and Done, release process.

LEAKAPP for iOS

- Built the app from an empty repository: universal iPhone and iPad app in SwiftUI and Swift Concurrency, Clean Architecture, Factory DI and 4 in-house frameworks (networking, GRDB database, Bluetooth, maps).
- Release manager for **6 App Store releases** since February 2026 with fastlane, Xcode Cloud, TestFlight and Firebase App Distribution.
- Offline-first leak management (measurements with audio and photos, sound labels, map positions, PDF reports) synced with the backend; **9 languages; 480+ automated tests**; Instruments profiling cut idle SwiftUI updates by 90%.

Field devices over Bluetooth

- **LEAKPEN** acoustic stick (BLE control, HFP audio, BLE audio file transfer) and **GASENA** gas detector (authenticated BLE connection, live readings, firmware updates with Nordic DFU).
- **TERRALOG 2.0** ground microphone on iOS and Android: BLE audio transfer, headphone pairing through the device, 6 listening profiles, auto gain and mute.
- **LOG3000BT** leak correlator as an **Apple MFi accessory** (External Accessory, iAP2): live correlation and spectrum charts from a Go DSP engine, live listening and recording of both loggers.
- Led the cross-team investigation of audio loss on older iPhones (Bluetooth packet captures, on-device diagnostics, firmware flashing); the joint firmware and app change now delivers the **full audio stream**.

Android, Kotlin Multiplatform, China edition and tools

- Main developer of the TERRALOG 2.0 and HFP recording modules on Android (Kotlin, Compose, Hilt, Room), author of **250+ Android unit tests**; contributor to the shared KMP libraries and their release versioning.
- China edition: Baidu Maps behind a provider-agnostic map layer, local navigation apps, Simplified Chinese and consent flows; wrote the technical and regulatory assessment for the China launch.
- Also built an NFC provisioning proof of concept for LTE-M and NB-IoT loggers (Core NFC, Lwm2m) and an internal Next.js translation tool using the Claude API.

Stack: Swift, SwiftUI, Combine, Swift Concurrency, Factory, GRDB, Core Bluetooth, External Accessory, Core NFC, AVAudioEngine, Kotlin, Jetpack Compose, Hilt, Room, Kotlin Multiplatform, SKIE, fastlane, Xcode Cloud, Bitbucket, Jira

Freelance Mobile Engineer | Private clients

2020 – Present

Apps delivered end to end for private clients, from architecture to store submission · Remote



Oi AI Assistant · AI assistant on the App Store and Google Play App Store · Google Play

2023 – Present

- Sole iOS developer of an AI assistant with **225K+ users**: streaming multi-agent chat, image generation and analysis, document summaries, StoreKit 2 subscriptions, sign-in with SMS, Apple and Google, **19 languages**.
- 2026: security audit, then a new Cloud Functions backend for both apps (SSE streaming, App Check, server-side purchase validation, rate limits).



Noy VPN · VPN app on the App Store and Google Play App Store · Google Play

2020 – Present

- Sole iOS and Android developer since the first release: **\$90K+ in store revenue** (\$50.9K App Store, about \$40K Google Play).
- 2026 iOS rewrite: WireGuard in a Network Extension packet tunnel, StoreKit 2 plans, new Figma design, speed test and **16 languages**; fixed long-session background disconnects.



Nura · nutrition and health app, iOS and Android

2026

- Lead engineer: Kotlin Multiplatform core with MVI stores and **1,700+ shared tests**, SwiftUI and Jetpack Compose apps, HealthKit and Health Connect, 8 languages including Arabic and Hebrew.
- Firebase backend with Gemini 2.5 Flash on Vertex AI and server-side validation, React admin console; Home load time cut from **2.9 s to 0.8 s**.



Youz · anonymous location-based social network

2026

- Lead engineer across 10 repositories: SwiftUI app on a shared KMP core, Android co-built with a second developer, React back office and SEO website; wrote **2 reusable KMP libraries** (Firebase SDK, in-app purchases).
- Firebase backend with **110 Cloud Functions**: encrypted chat with managed keys (Cloud KMS, HPKE, AES-GCM), AI moderation in 12 languages (Gemini, Cloud Vision); chat send time cut from **1 s to 0.2 s**.

-  **Vitelx** · clinician app for a Bluetooth LE health sensor 2026
- Bluetooth LE stack and measurement state machine written once in Kotlin Multiplatform, with heart rate variability and bioimpedance signal processing, clinical scores and PDF reports.
 - Firebase backend with Phone Auth, tested security rules and logged admin access; React admin console; 8 languages; **730+ unit tests**.
-  **Secure messaging and calling app** · iOS 2026
- iOS app on the Matrix Rust SDK and LiveKit: CallKit and PushKit VoIP calls interoperable with web and Android, group calls, picture in picture, virtual backgrounds, live drawing over data channels, encrypted push notifications.
-  **Ride-hailing driver copilot** · Flutter MVP, iOS and Android 2026
- Sole developer of a Flutter app for ride-hailing drivers in France: 18 feature modules (Riverpod, go_router, Dio) on the client's OpenAPI backend, including earnings tracking, demand heatmap and on-device OCR of ride offers.

Senior iOS Consultant | Enablon (Wolters Kluwer) Feb 2019 – Nov 2024
Enterprise EHS and risk management software · mobile team of 23 (iOS, Android, QA, product, design) · Paris area Enablon
 Inspection · Enablon Go

- iOS lead across 3 enterprise apps and their shared forms SDK for 5+ years, with architecture decisions and code reviews shared with the Android team.

Dynamic forms SDK (shared by Inspection, Go and Audit)

- Owned the native engine that renders server-driven forms (conditional fields, validation, dependencies, auto-fill) over REST and Microsoft OData, and released it from RC to production.

Enablon Inspection

- Offline-first checklists with automatic sync, background downloads with caching, document preview, OAuth 2.0 PKCE sign-in, Core Data and API migrations with no data loss, iPad and Arabic RTL support.

Enablon Go and Audit

- Redesign of Enablon Go in **12 languages** with parts moved to SwiftUI and Objective-C code migrated to Swift; SonarQube quality gates and Azure DevOps YAML pipelines.

Stack: Swift, Objective-C, SwiftUI, UIKit, Swift Concurrency, Resolver, Realm, Core Data, Couchbase, Alamofire, OData, Azure DevOps, XCTest, SonarQube, SwiftLint

iOS Engineer | In Time Solutions / Machinestalk Oct 2018 – Jan 2019
IoT fleet management · Saudi Arabia App Store

- Built FMS, a fleet management iOS app with real-time vehicle tracking on Google Maps, trip history by date and instant alerts through Firebase Cloud Messaging, delivered iteratively in Scrum.

Stack: Swift, Objective-C, Realm, Alamofire, Google Maps SDK, Firebase Cloud Messaging, Jenkins, Crashlytics, MVP

Mobile Engineer, iOS & Android | Karizma Technology Aug 2016 – Sep 2018
Mobile product studio · 8 consumer apps shipped in 2 years · Tunisia

- **Social and messaging** (YOUZ, WOIN): anonymous posting, real-time chat with Parse Live Query, VoIP calls with PushKit, CallKit and WebRTC.
- **Marketplaces** (ESTBDL, SHGATIE, SAFQA) and **entertainment** (SHOOT, D-Family, Nalaab): location-based search, buyer and seller chat, PayPal payments, live scores with Socket.IO, video with live comments.
- Mentored engineering interns on mobile development, databases and API integration for their final-year projects.

Stack: Swift, Java, Android SDK, Firebase, Parse, Socket.IO, WebRTC, PushKit, CallKit, OneSignal, MapKit, PayPal, AdMob, Alamofire

EDUCATION & CERTIFICATIONS

Engineering degree in Computer Science Master's level (Bac+5) · Tunisia · 2016 · with honors
Baccalaureate 2010 · highest honors
TOEIC English, score 725

LANGUAGES

Arabic native | **French fluent** | **English fluent, professional**