

Salma Madouri Makni

Senior Android Engineer

KOTLIN · ANDROID SDK · NFC / APDU · BLUETOOTH LE · CLEAN ARCHITECTURE

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PROFILE

Senior Android Engineer with 10 years building critical mobile software that talks to hardware: NFC/APDU ticketing SDKs for SNCF and Bluetooth Low Energy apps for connected and implantable medical devices. Kotlin expert and Clean Architecture practitioner, used to shipping reusable SDKs to integrators on industrial terminals and standard Android devices. Works with an AI-augmented workflow while keeping full ownership of quality, security and sensitive data.

KEY STRENGTHS

NFC & contactless ticketing

Calypso over NFC, APDU exchange via Keyple, Bluebird & SpringCard terminals.

Bluetooth LE & medical IoT

Discovery, pairing, GATT, connection lifecycle and reliable data retrieval.

Reusable Android SDKs

Libraries designed for integrators, one shared codebase across devices.

Architecture & quality

Clean Architecture, MVVM, DI, GitLab CI / Jenkins, unit & instrumented tests.

Resilient, offline-ready apps

Local persistence & synchronisation so field apps keep working without network.

AI-augmented delivery

AI pair programming, test generation and code review — reviewed, tested, privacy-safe.

PROFESSIONAL EXPERIENCE

Senior Android Mobile Developer · SNCF

Feb 2022 — Jan 2026

Ticketing · Android SDKs — Kotlin Android SDKs powering SNCF ticket inspection and distribution services, deployed on industrial handhelds and standard Android devices.

- Built Kotlin Android SDKs for SNCF ticket inspection & distribution: Calypso container reading over NFC, APDU exchange via Keyple.
- Designed the SDK with Clean Architecture and one shared codebase for industrial terminals (Bluebird, SpringCard) and standard Android phones.
- Set up GitLab CI (build, tests, SDK delivery); integrated Jetpack Compose and unit tests.
- Built offline persistence & synchronisation layers to keep field apps resilient without connectivity.
- Solved complex NFC, hardware and Android-compatibility issues; supported integrators adopting the SDK.

Environment: Kotlin, Android SDK, NFC, APDU, GitLab, GitLab CI, Gradle, Bluebird SDK, Keyple, Clean Architecture, Dagger, Koin, Jetpack Compose, Retrofit, kotlinx-serialization, Unit tests, Coroutines / Flow, Scrum / Agile

Senior Android Mobile Developer · MicroPort CRM

Nov 2019 — Jan 2022

Connected medical devices · Remote monitoring — Remote-monitoring Android app collecting, processing and securely transmitting clinical data from implantable medical devices connected over Bluetooth Low Energy.

- Developed a remote-monitoring app collecting and securely transmitting clinical data from implantable medical devices over BLE.
- Built the BLE communication layer with connected medical devices; uploaded data to back-office platforms for remote patient follow-up.
- Clean Architecture, Kotlin Coroutines, secured REST APIs (Retrofit, OkHttp), Room.
- Defined the test strategy (unit & instrumented tests); worked closely with UX/UI and business teams in Scrum.

Environment: IoT, Android Studio, Kotlin, XML, Git, AndroidX, Famoco, MDM API, REST API, OkHttp, Retrofit, Room, Coroutines, BLE, Unit tests, Instrumented tests, Scrum, Dagger, Clean Architecture

PROFESSIONAL EXPERIENCE

Android Mobile Developer · TravelCar

May 2019 – Oct 2019

Mobility · Booking platform — International mobility platform: parking spots, car rental and travel services, in a fast-growing product context.

- Designed and built the vehicle check-in/check-out module (inspections before and after rental).
- REST API integration, secured Room migrations across app versions, Firebase Analytics tracking plan.
- Geolocation & Google Maps features; performance and stability improvements on a high-traffic production app.

Environment: IoT, Android Studio, Kotlin, Java, XML, Git, JIRA, Glide, AndroidX, Google Maps, Room, Firebase Analytics, REST API, Retrofit, LiveData, Coroutines, Dagger, Jenkins, Scrum

Android Mobile Developer · Telnet Holding

Sept 2015 – Feb 2019

IoT · Connected health — Health-tracking app (blood pressure, weight, activity) connected to A&D medical devices and a Telnet-specific connector.

- Health-tracking app with connected A&D devices (UA-651BLE blood-pressure monitor, UC-352BLE scale).
- BLE discovery, pairing, connection lifecycle and reliable measurement retrieval & synchronisation.
- Improved Bluetooth connection stability and solved interoperability issues across medical devices.

Environment: IoT, BLE, Android Studio, Git, SQLite, Java, XML, Scrum

SKILLS

Languages	Kotlin, Java, XML, SQL, JavaScript, Dart
Android	Android SDK, Jetpack Compose, AndroidX, Room, Retrofit, OkHttp, Coroutines, Flow, LiveData, Flutter
Connectivity	BLE, NFC, APDU, Calypso, Keyple, REST, GraphQL, IoT
Architecture	Clean Architecture, MVVM, DRY, Dependency Injection (Dagger, Koin)
Tests	JUnit, Espresso, MockK, unit & instrumented tests
Tools & CI/CD	Android Studio, Gradle, Git, GitLab CI, Jenkins, Bitbucket, Firebase (Analytics, Crashlytics), Jira, Confluence, Trello
Databases	Room, SQLite, MySQL, NoSQL
AI-assisted dev	AI pair programming, test generation, code review, prompt engineering
Methodology	Scrum, Agile, Kanban

EDUCATION

Engineering degree — Telecommunications2015

École Nationale d'Ingénieurs de Tunis (ENIT) · With highest honours (Très bien)

National entrance exam to engineering schools — Math/Physics2012

Institut Préparatoire aux Études d'Ingénieurs d'El Manar (IPEIEM) · With highest honours (Très bien)

Baccalaureate — Mathematics2010

Lycée El Menzah 9 (El Menzah 9) · With highest honours (Très bien)

LANGUAGES

French

Fluent — professional working language

Arabic

Native

English

B2 — read, written, spoken

German

School level

Interactive version with live NFC, BLE & architecture demos → salma-makni.com