

# Ghassen Mallek

Software Engineer

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🔗 GhassenMallek    🔗 <https://ghassenmallek.tn>

## PROFILE

Mobile Software Engineer experienced in building and shipping high-quality mobile applications. Specialized in iOS development using Swift, SwiftUI, and UIKit, with a strong background in Flutter, clean architecture, MVVM, and RESTful APIs. Experienced in delivering apps to the App Store and Play Store, collaborating with cross-functional teams, and mentoring developers.

## EDUCATION

|             |                                            |
|-------------|--------------------------------------------|
| 2020 – 2023 | <b>ESPRIT</b> , IT ENGINEER'S DEGREE       |
| 2017 – 2020 | <b>ISSET Sfax</b> , Mechanical Engineering |

## PROFESSIONAL EXPERIENCE

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|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/2024 – present<br>Tunis, Tunisia   | <b>IB Space</b> , Mobile Developer <ul style="list-style-type: none"><li>• Conduct code reviews to improve code quality, architecture consistency, and performance.</li><li>• Identify, debug, and fix critical application errors across mobile platforms.</li><li>• Implement and maintain GitHub Actions CI/CD pipelines for automated build and deployment.</li><li>• Collaborate with cross-functional teams to ensure stable releases and continuous delivery.</li></ul> keyword : Flutter, FrontEnd developer, Mobile developer, iOS, Android, Web, code reviews,                     |
| 09/2023 – 12/2024<br>Ariana, Tunisia  | <b>ESPRIT</b> , Software Engineer & Head of iOS Unit <ul style="list-style-type: none"><li>• Led the iOS unit, mentoring students in Swift, SwiftUI, UIKit, and mobile best practices.</li><li>• Designed iOS training programs and coached developers on real-world projects.</li><li>• Delivered Flutter and Java OOP training sessions.</li></ul> Keywords : iOS, Flutter Developer, Android, Java OOP Trainer, iOS, FlutterFlow                                                                                                                                                          |
| 06/2023 – 09/2023<br>Ariana, Tunisia  | <b>Inspark</b> , Software Engineer   Freelance <ul style="list-style-type: none"><li>• Developed and maintained mobile application features using Flutter with clean architecture principles.</li><li>• Worked on a recommendation system, contributing to data processing and logic used to personalize user content.</li><li>• Integrated REST APIs and collaborated with backend teams to improve performance and reliability.</li></ul> Keywords : flutter developer                                                                                                                     |
| 12/2022 – 06/2023<br>Montreal, Canada | <b>360Medlink</b> , Software Engineer Intern (End-of-Studies) <ul style="list-style-type: none"><li>• Developed computer vision and deep learning pipelines for medical image analysis using Python and OpenCV.</li><li>• Implemented image segmentation and 3D wound analysis features to support melanoma detection.</li><li>• Integrated and exposed analysis results into an iOS mobile application, enabling real-time visualization and clinical usage.</li><li>• Collaborated with mobile and backend teams to ensure seamless data flow between AI models and the iOS app.</li></ul> |

07/2022 – 09/2022  
Tunis, Tunisia

**Welyne**, Intern : Full-stack developer  
Keywords : Flutter, Node.js, Express, NoSQL, MongoDB

07/2021 – 08/2021  
Sfax, Tunisia

**Clinisys**, Intern : Backend developer  
Keywords : Spring boot, Swagger, MySQL

## PROJECTS

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### Takalif app

Personal finance and budgeting platform available on Android and iOS — offline-first with local data storage, expense tracking, savings goals, and statistical dashboards.

**keywords :** Flutter, Dart, SQLite, GetX, Clean Architecture, CI/CD, App Store & Play Store deployment.

### jawqa app

- Entertainment and training platform deployed in the Kingdom of Saudi Arabia published on App Store and Google Play.

**keywords :** Flutter, Laravel, CI/CD pipelines, App Store & Play Store deployment.

### Multi-robot task allocation

Cooperative task allocation for heterogeneous robot teams, applying multi-agent reinforcement learning with centralized training and decentralized execution — simulated and validated in ROS2/Gazebo.

**Keywords:** Multi-Agent Reinforcement Learning (MARL), CTDE, HAPPO, ROS2, Gazebo, TeamGNN, FiLM-U-Net, Python, Robotics Simulation.

### WebAttivo

Built a full-stack web app with Flutter and PHP Laravel for real-time website monitoring, analytics, and alerting, with CI/CD, deployment, and cross-platform support for web, iOS, and Android.

**keywords :** Flutter, php Laravel , CI/CD, deployment, web, iOS, Android

### Bal des projet

Bal des Projets is an innovative mobile application to organize the "bal des projet" event.

**Keywords :** Flutter

### Java Exam Platform

Web-based exam management system for university Java courses, supporting admin, teacher, and student roles — three-part assessment engine (QCM, OOP code completion, LeetCode-style problems) with secure server-side grading via self-hosted Judge0 sandbox.

**Keywords:** Node.js, Express, MongoDB, Angular, Judge0, Docker, JWT Authentication, Role-Based Access Control, Automated Grading.

### ATHEER

E-commerce platform for a Tunisian women's shoe brand ([shop.atheer.tn](https://shop.atheer.tn)), self-built and self-hosted end-to-end — includes a custom backend, SEO-optimized storefront, and a social media analytics pipeline integrating Meta Graph API with AI-driven insights.

**Keywords:** Node.js, Express, MongoDB, Angular, SEO Optimization, Meta Graph API, Claude API, Analytics Pipeline, E-commerce, Self-Hosted Deployment.

### RestoApp

Streamlined restaurant management app enabling reservation, order selection, kitchen communication, and seamless checkout/payment for cafes and restaurants.

**Keywords :** Flutter

### iOSBooking

application for booking iOS labo in ESPRIT

**keywords :** Flutter, NodeJS, ExpressJS, MongoDB, Clean architecture

### Showapp

E-commerce mobile application, deployed on App-Store, and App-Gallery

**Keywords:** Android, Kotlin, Swift, Node.js, Express, MongoDB

### Mobile App for Dermatologists (End of study project)

Dermatology app utilizing computer vision and deep learning to scan and analyze wounds in 3D, aiding in accurate measurement and melanoma detection for dermatologists.

**Keywords:** OpenCV, Deep learning, Image segmentation, iOS

### Pidev app

Manage projects in ESPRIT

**Keywords:** Flutter, NodeJS, ExpressJS, MongoDB

### VANGUARD

Job-matching platform backend (Node.js/Express/MongoDB, recommendation system, Swagger)

### Insight

An all-in-one app connecting doctors and patients for appointments, prescriptions, medical follow-ups, and locating nearest healthcare providers.

**Keywords:** MEAN ,

### CNC machine (End of study project)

Engraving shapes on a metal or not-metal material

**Keywords:** Arduino, Solidworks, mechanical engineering, CAD

## CERTIFICATES

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**ENGLISH LEVEL B2: Yes you can training center** — Trainer : TRABELSI Emna •

**JAVA OCA 1Z0-808 : SMART IT** — Trainer : MEZGHICH Mohamed Amine •

**FULL STACK (SPRING BOOT & ANGULAR), SCRUM : SMART IT** — Trainer : MEZGHICH Mohamed Amine •

**Python** — Trainer : Ghazi tounsi •

**CSWP: Mechanical design at the level professional with solidworks software** — Certificate approved by Dassault Systemes • **SCRUM FOUNDATION PROFESSIONAL** — Certificate approved by CertiProf | Trainer: Mourad Hassini

## ASSOCIATIVE LIFE

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09/2022  
Kram, Tunisia

**E-health hackathon**, Participant

06/2022  
Ariana, Tunisia

**Hackathon 4.0 AISEC BARDO**, Participant

2017 – 2019  
Sfax, Tunisia

**Microsoft tech club**, Treasurer

12/2017 – 04/2018  
Sfax, Tunisia

**Xcoding challenge V4.0 and V3.0**, Organiser

10/2018  
Sfax, Tunisia

**Sfax International Half Marathon**, Organizer

## SKILLS

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iOS, SwiftUI, Cross-platform, Flutter, Store Deployment, Android, Java, Dart, Swift, Python, MVVM, Clean Architecture, SOLID Principles, Git, SQL, NoSQL, MongoDB, MySQL,

## LANGUAGES

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• Arabic

• English

• French