



# Malek Maghraoui

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## ● ABOUT ME

Creative and results-driven Web Developer & UI/UX Designer with a strong technical foundation and a passion for crafting seamless digital experiences. Known for combining design precision with development expertise, delivering polished products from concept to launch. As an AWS Cloud Captain and active community member, I thrive in collaborative environments and lead impactful initiatives. With 23 hackathons under my belt and a versatile freelance background, I bring adaptability, innovation, and a commitment to excellence to every project.

## ● WORK EXPERIENCE

### 🏢 ARIMAYI – FRANCE

#### FRONTEND DEVELOPER INTERN – 06/2025

- Developed a fully functional real estate web application using **Next.js**, **TypeScript**, and **Tailwind CSS**.
- Built responsive UI components based on **Figma** designs, ensuring optimal experience across devices.
- Integrated RESTful APIs for dynamic property listing, search filters, and user dashboards.
- Optimized codebase for performance, resulting in faster page loads and better SEO.
- Collaborated in Agile sprints with backend and design teams to meet deliverables efficiently.

### 🏢 ECOCODE – SFAX, TUNISIA

#### AI ENGINEER INTERN – FINAL YEAR PROJECT (PFA) – 20/05/2025 – 20/07/2025

- Developed an **LLM-powered assistant** tailored for accountants and financial advisors in Tunisia, capable of simulating tax scenarios, detecting anomalies, and providing personalized fiscal recommendations.
- Built a **Retrieval-Augmented Generation (RAG)** system using Python, integrating over **5,000 official Tunisian legal and financial documents** into a searchable vector store to support contextual AI reasoning.
- Designed **tax simulation modules** (e.g., similar to *Tunimpot*) that automate and calculate tax liabilities across varying regimes using dynamic API logic.
- Engineered **fiscal optimization and deduction recommendation modules**, offering **legal strategies** for tax burden reduction, akin to real-world tools like *Goix*.
- Implemented **credit d'impôt (tax credit)** computations and detection of anomalies in uploaded documents, improving the accuracy of fiscal reporting.
- Integrated **DeepSeek** and other large models with professional prompting and domain-specific vocabulary for high-quality financial dialogue.
- Ensured LLM responses adhered to **Tunisian financial law**, improving reliability and legal compliance for professional use cases.

### 🏢 ARTIFY – ARIANA, TUNISIA

#### FULLSTACK WEB DEVELOPER INTERN & FREELANCE DEVELOPER – 12/09/2024 – 15/03/2025

- Rebuilt Artify's platform using Next.js and TypeScript, enhancing code maintainability and improving platform performance by 25%.
- Redesigned the platform's UI/UX using Tailwind CSS and ShadCN, creating a modern, visually appealing interface with smooth animations that improved user engagement by 30%.
- Integrated multiple third-party libraries (Axios, Zustand..) to extend functionality and streamline the user experience, achieving a 20% faster page load time.
- Integrated DevOps practices by setting up CI/CD pipelines with GitHub Actions, automating testing and deployment processes for faster and more reliable updates.
- Continue to work with Artify as a freelance developer, supporting ongoing platform enhancements, debugging, and implementing new features based on evolving client needs.
- Conducted rigorous testing and debugging to ensure cross-browser compatibility and responsiveness across devices



## FREELANCER

### Lead Insight: AI-Powered Instagram Lead Management Platform

A powerful full-stack web application designed to help marketers and businesses upload, analyze, score, and manage Instagram leads efficiently using AI and advanced filtering.

#### Outcome

Delivered as a private freelance project with highly positive client feedback. The platform streamlined lead generation workflows and improved AI-based lead qualification, resulting in more targeted outreach and better user efficiency. (more details in the projects section)

*Private repo – demo available upon request*



## INSTRUCTOR IN WEB DEVELOPMENT

### MTC ISGI

Taught front-end development (HTML, CSS, JS) and guided students through the process of building a functional Todo List app.

### IEEE ISI

Conducted two sessions on front-end development (HTML, CSS), teaching students how to create modern, responsive landing pages.

### AWS Cloud Club ISIMS X IEEE SB ISIMS

Delivered a comprehensive full-stack course on the MERN stack, culminating in a hands-on workshop where students applied their skills to build a complete web application.

## ● EDUCATION AND TRAINING

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CURRENT Sfax, Tunisia

### BACHELOR DEGREE IN COMPUTER SCIENCE Borjlouzir

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Website <https://isimsf.rnu.tn> | Field of study Computer Science, Big Data | Level in EQF EQF level 6

2019 – 2023 Ariana, Tunisia

### COMPUTER SCIENCE HIGH SCHOOL DIPLOMA Borjlouzir High School

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Level in EQF EQF level 4

## ● LEADERSHIP & RECOGNITION

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2023 – 2026

### AWS Cloud Club Captain – AWS (Credly Badges)

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Led the AWS Cloud Club by organizing events, conducting workshops, and fostering a community passionate about cloud computing. Earned multiple recognitions for impactful leadership and sustained contributions:

- **Bronze Level Badge** – Initiated and hosted impactful AWS events
- **Silver Level Badge** – Demonstrated consistent leadership and growth in club activities
- (View badges: [AWS Cloud Club Captain](#), [Bronze Badge](#), [Silver Badge](#))

## ● VOLUNTEERING

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11/03/2024 – CURRENT Sfax, ISIMS

### AWS Cloud Club Captain

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#### AWS Services & DevOps Workshops

Led workshops on AWS services (EC2, S3) and DevOps practices, providing hands-on training in cloud infrastructure, server configuration, and deployment.

#### Community Event Coordination

Organized and coordinated cloud and DevOps-focused events, increasing participant engagement by 25% year-over-year.

#### Community Initiatives

Led initiatives to promote cloud computing, organizing over 15 workshops and seminars with a year-over-year attendance growth of 25%.

Links [meetup.com/aws-cloud-club-in-tunisia/](https://meetup.com/aws-cloud-club-in-tunisia/) | <https://www.facebook.com/people/AWS-Cloud-Club-ISIMS/61558406757136/>

## PROJECTS

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### TunisiaFlicks

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#### TunisiaFlicks

TunisiaFlicks is a dedicated streaming and discovery platform for Tunisian cinema, offering users free access to a curated selection of movies with no ads.

- **UI/UX Design:** Modern, interactive UI with dark/light mode, smooth animations via Framer Motion, and seamless navigation.
- **User Features:** Includes profile dashboard, favorites, saved movies, and liked content.
- **Tunisian Movies Section:** Integrated via web scraping with JSDOM for dynamic content.
- **Authentication & Security:** Secure login with JWT, cookies, hashed passwords, protected routes, and redirection for user safety.
- **Performance & Scalability:** Optimized with Next.js for server-side rendering, static site generation, and SEO, ensuring fast load times and better visibility.
- **Interactive Components:** Built with ShadCN and Zustand for state management, creating a smooth and interactive user experience.
- **Database:** Scalable data storage using MongoDB.

#### Tech Stack:

Next.js, TypeScript, Tailwind CSS, Zustand, MongoDB, JWT, Bcrypt, Framer Motion, ShadCN, Zod, JSDOM.

#### Outcome:

The platform received positive feedback for its intuitive design and comprehensive movie database, leading to increased user engagement and satisfaction.

#### Demo & GitHub:

- [More Details](#)
- [Demo](#)
- [GitHub](#)

### Lead Insight – AI-Powered Instagram Lead Management Platform

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A powerful full-stack web application designed to help marketers and businesses upload, analyze, score, and manage Instagram leads efficiently using AI and advanced filtering.

#### Key Features

- **Batch Lead Upload:** Users can upload CSV files of Instagram accounts and organize them into structured batches.
- **AI-Powered Scoring:** Uses OpenAI API and Groq SDK to analyze leads based on profile data, engagement metrics, and business relevance.
- **Keyword Filtering:** Supports global keyword libraries for refining leads with "Good" and "Bad" keyword matching logic.
- **Custom Messaging:** Auto-generates personalized outreach messages using AI with editable, saved prompt templates.
- **Interactive Dashboard:** Displays metrics like batch status, qualified leads, scoring progress, and lead tables with sorting and filtering.
- **Authentication & Security:** Implements secure login, protected routes, JWT sessions, and bcrypt password hashing.
- **Responsive UI:** Mobile-ready layout with collapsible navigation, smooth transitions, and accessible forms.


#### Technology Stack

- **Frontend:** Next.js 15, React 19, TypeScript, Tailwind CSS, Radix UI, Framer Motion, Lucide, TanStack Table
- **Backend:** Next.js API Routes, MongoDB, Mongoose, NextAuth.js, bcryptjs
- **AI Integration:** OpenAI API, Groq SDK, Zod (schema validation), React Hook Form, React Dropzone
- **Architecture:** Component-based layout, dynamic routing, progressive batch scoring, retry/backoff logic, secure API handling

#### Outcome

Delivered as a private freelance project with highly positive client feedback. The platform streamlined lead generation workflows and improved AI-based lead qualification, resulting in more targeted outreach and better user efficiency.

- [More Details](#)

 Private repo – demo available upon request

### IPSAS University Platform

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#### University Information & Management System – Hackathon Project

Developed a full-stack web platform for IPSAS University during a hackathon, designed to centralize access to university resources, services, and academic information for students and faculty.

#### Project Highlights

- **Responsive UI:** Built a modern, user-friendly interface using React.js and Tailwind CSS, enhanced with Framer Motion for smooth animations and seamless interaction across devices.
- **Dynamic Rendering:** Used Next.js for server-side rendering and dynamic routing to optimize performance and improve SEO.
- **AI-Powered Chatbot:** Integrated an AI assistant to provide instant answers to academic questions and personalized learning support.
- **Blockchain Integration:** Implemented Ethereum-based certification to securely issue and verify academic credentials.
- **Secure Authentication:** Designed a role-based access control system with JWT, cookies, and hashed passwords to protect user data.
- **Scalable Backend:** Utilized MongoDB for efficient data management and future scalability.

#### Key Outcomes

Delivered a fully functional platform within the hackathon timeframe, demonstrating strong collaboration, rapid development, and innovative problem-solving skills.

#### Why This Project Stands Out

- Delivered under time constraints with a focus on functionality and user experience
- Showcased full-stack development skills across both frontend and backend
- Incorporated emerging technologies like AI and blockchain in a real-world use case
- Prioritized performance, security, and accessibility throughout the platform

#### Technology Stack

React.js, Next.js, Tailwind CSS, MongoDB, JavaScript, Framer Motion, Ethereum, AI Chatbot

#### Links

- [More Details](#)
- [Live Demo](#)
- [GitHub Repository](#)

20/05/2025 – CURRENT

### TuniTaxAI – Tunisian Financial & Tax Assistant

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A comprehensive LLM-powered legal-financial assistant for Tunisian accountants and professionals.


#### Key Features:

- **Tax simulation:** API-based calculations across regimes (like *Tunimpot*).
- **Optimization & fiscal strategy recommendations.**
- **Deduction & tax credit recommendations** (including document-based analysis).
- **Anomaly detection:** Validate financial documents, flag inconsistencies.
- **LLM dialogue:** DeepSeek integrated with domain-specific RAG for accurate, regulation-aware advice.

**Technologies:** Python, LangChain, DeepSeek, OpenAI, RAG (Vector DB), PDF parsers, financial APIs

**Data:** +5,000 financial & tax law PDFs from Tunisian government and public sources

**Goal:** Automate expert-level financial guidance while ensuring legal compliance in the Tunisian tax context.

 Private repo – demo available upon request

## ● COURSES & CERTIFICATIONS

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2022

### Backend Web Development Certification – GOMYCODE

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Completed an intensive hands-on backend development program focused on building secure, scalable web applications using the **MERN stack**. The training emphasized best practices in backend architecture, user authentication, and API development.

#### Final Project:

Developed a full-stack **Blood Donation Web App** to connect donors and patients in need of urgent medical services. The platform included secure user registration, real-time requests for specific blood types, and donor filtering.

#### Key Skills & Tools:

React, Redux, Node.js, Express.js, MongoDB, JWT, Bcrypt, RESTful APIs, MVC architecture, form validation, role-based access control, and deployment strategies.

05/2025

### HackerRank Software Engineer Certification

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Demonstrated advanced proficiency in software engineering principles, including data structures, algorithms, problem-solving, and coding best practices. Successfully completed rigorous assessments that validate real-world coding skills and technical knowledge aligned with industry standards.

Link <https://www.hackerrank.com/certificates/c33c23ddf2dd>

2024 – 2025

## MongoDB Certifications & Skill Badges – Credly

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Earned a series of certifications showcasing deep expertise in MongoDB schema design, optimization, and AI-powered applications:

- [From Relational Model \(SQL\) to MongoDB's Document Model](#)
- [MongoDB Schema Design Patterns and Antipatterns](#)
- [MongoDB Advanced Schema Design Patterns and Antipatterns](#)
- [MongoDB Schema Design Optimization](#)
- [Building AI-Powered Search with MongoDB Vector Search](#)
- [Building RAG Apps Using MongoDB](#)

## SKILLS

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### Programming Languages

JavaScript | TypeScript | Python | C++ | C | Java | SQL | PHP | NoSQL | XML | HTML | PHP | CSS

### Frontend Development

React.js | Next.js | Tailwind CSS | Framer Motion | Radix UI | Zustand | TanStack Table | React Hook Form | React Dropzone | JSDOM | Zod | JQuery | Bootstrap | Redux | Shadcn | i18n | translate requirements into visual design | Photoshop And Figma

### Backend Development

Node.js | Express.js | MongoDB | Mongoose | Next.js API Routes | JWT (JSON Web Tokens) | Bcrypt (Password Hashing) | NextAuth.js | RESTful api | Web API | API Integrations | Relational databases | JSON | Object-Oriented Programming

### Cloud & DevOps

Github | Docker | AWS | Vercel | Linux | Continuous Integration / Continuous Deployment (CI/CD | Version Control Workflows (Git Flow, Feature Branching) | Environment Variables & Secret Management | Logging and Debugging Production Apps | Domain Management & DNS Configuration | DevOps

### Tools & Platforms

Git & GitHub | Postman | Thunder Client | VS Code | Figma | Canva | Notion | Google Docs | Microsoft Office | Trello | Jira | tools for software configuration management

### AI, Machine Learning & Data

OpenAI API | Groq SDK | TensorFlow | Pandas | Matplotlib | Data Mining | AI Chatbot Development | CSV & Batch File Processing | Real-time Data Handling (e.g., score updates, filtering tables) | Data Modeling (MongoDB, Mongoose schemas) | Exploratory Data Analysis (EDA) | Data Visualization (Bar charts, Tables, Dashboards) | LLM Integration | Retrieval-Augmented Generation (RAG) | LangChain / Vector DBs (e.g., FAISS or Chroma) | PDF parsing (PyMuPDF, pdfplumber, etc.) | Financial modeling & tax simulation | Domain-specific prompting | AI in Legal & FinTech

### Security

Authentication (JWT, OAuth2) | Role-Based Access Control | Secure Session Handling | HTTPS | Cookies | Cryptography Fundamentals | CORS | Ethical Hacking (basic)

### Big Data & Cloud Computing (Academic Exposure)

Hadoop | Azure

### Software Engineering & Testing

Agile Methodologies | Software Development Lifecycle (SDLC) | Scrum Practices | Manual Testing & Debugging | Cross-browser Compatibility Testing | Software Engineering | use software design patterns

## Teaching & Mentorship

Public Speaking | Technical Tutoring | Workshop Delivery | Presentation Design | Event Moderation

## Soft Skills

Leadership | Team Collaboration | Communication | Time Management | Adaptability | Creative Problem Solving | Mentoring & Coaching | Initiative & Responsibility | act reliably

## Advanced Web Development & Frameworks

RESTful APIs | Server-Side Rendering (SSR) with Next.js | Static Site Generation (SSG) | Responsive Web Design | Component-Based Architecture | Headless UI Principles | Routing & Navigation in SPAs | Web Performance Optimization (Lighthouse, lazy loading) | SEO Optimization in Web Apps | Accessibility (WCAG Compliance)

## ● CONFERENCES AND SEMINARS

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Sfax, Higher Institute of Computer Science and Multimedia of Sfax (ISIMS)

### Cloud Computing Conference – AWS Cloud Club ISIMS

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As part of my leadership role in the AWS Cloud Club ISIMS, I led the organization and delivery of a large-scale **Cloud Computing Conference** focused on the future of cloud technologies, AWS tools, and real-world applications. The event featured both technical and non-technical sessions, hands-on demonstrations, and a strong community engagement element.

- **Key topics covered:** EC2, S3, Lambda functions, DevOps pipelines, and use cases of cloud in modern startups.
- **Audience impact:** Over 60 attendees participated, including students from multiple universities, academic staff, and industry professionals.
- **My role:** Managed event planning, speaker coordination, promotion, logistics, and gave a session introducing AWS services for beginners.
- **Outcome:** The conference was widely praised for its professionalism and clarity, strengthening the visibility of AWS Cloud Club and inspiring several students to begin cloud certifications.

## ● NETWORKS AND MEMBERSHIPS

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Sfax, ISIMS

### 1st Year – Google DSC & Microsoft Learn Student Ambassadors Clubs ISIMS

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Participated in collaborative workshops and beginner-friendly tech sessions. Engaged with fellow students to exchange ideas, ask questions, and contribute to open discussions. Supported event activities and helped create a welcoming environment for new learners.

Worked with a small team to help build the official website for the Google Developer Student Club ISIMS, contributing to both the technical development and coordination within the team.

Sfax, ISIMS

### 2nd Year – AWS Cloud Club & IEEE Student Branch ISIMS

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Actively involved in organizing and assisting with cloud and engineering events. Engaged with attendees during workshops and open days, helped explain technical concepts, and contributed to community-building efforts. Played a key role in facilitating communication between participants and organizing teams.

Tunis, Avenu lahbib bourgiba

### Joined AJST (Association Jeunes Science de Tunisie) – Astronomy Club

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Became an active member of the astronomy club under AJST, where I contributed to organizing large-scale public science events, including the **"Night of the Stars"**. These events brought together enthusiasts of all backgrounds and ages, fostering curiosity about astronomy.

This experience significantly strengthened my teamwork, communication, and teaching abilities. It also helped me connect with diverse individuals, adapt to different mindsets, and share scientific knowledge in an engaging and accessible way.

Ariana, Borjlouzir

### Scratch Programming Club – Middle School (8th & 9th Grade)

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Joined the Scratch Club where I learned the fundamentals of programming and logical thinking through an interactive, visual coding platform. Created several creative and functional projects, including recreations of **Windows 10**, **Super Mario**, **Flappy Bird**, and personalized games featuring friends as characters.

Participated in Scratch programming competitions and proudly earned **1st place in one of the school-level contests**. This experience sparked my passion for programming, encouraged early teamwork, creativity, and problem-solving, and laid the foundation for my continued journey in tech.

Ariana, Borjlouzir  
**Civil Club – Middle School (7th Grade)**

Joined the Civil Club where we engaged in weekly activities focused on environmental care, teamwork, and social responsibility. Participated in school clean-up initiatives every weekend and helped plant trees and flowers around the school to promote a cleaner, greener environment. This experience taught me the value of community service, teamwork, and taking pride in shared spaces. It also helped me develop discipline, a sense of civic duty, and respect for the environment from a young age.

● **DIGITAL SKILLS TEST RESULTS**

 Information and data literacy	<b>ADVANCED</b>	Level 6 / 6
 Communication and collaboration	<b>ADVANCED</b>	Level 6 / 6
 Digital content creation	<b>ADVANCED</b>	Level 6 / 6
 Safety	<b>ADVANCED</b>	Level 6 / 6
 Problem solving	<b>ADVANCED</b>	Level 6 / 6

Results from a [self-assessment](#) based on [The Digital Competence Framework 2.1](#)

● **LANGUAGE SKILLS**

Mother tongue(s): **ARABIC**  
Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>FRENCH</b>	B1	C1	B1	B1	B1
<b>ENGLISH</b>	B2	C1	B2	B2	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● **HOBBIES AND INTERESTS**

**Technology**

Coding is a personal passion beyond my professional work. I enjoy building side projects, exploring new technologies, and solving problems through code. Constantly experimenting with frameworks, tools, and AI APIs to expand my skillset and stay updated with tech trends.

Link <https://malekverse.com>

**Sport**

Passionate about street workout and calisthenics. Regularly train and practice bodyweight exercises that build strength, mobility, and endurance. Engaged in both solo and group sessions, focusing on discipline, consistency, and physical well-being. This hobby helps me stay balanced, motivated, and mentally focused. Write here the description...

**Music**

I occasionally play the guitar as a creative outlet and a way to relax. Playing music helps me stay mindful and improves my concentration, while also allowing me to express myself in a different form outside of tech.



● **HONOURS AND AWARDS**

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19/02/2025

**Certificate of Appreciation – Event Animator – House Of Culture**

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*House of Culture, Sakiet Ezzit – Sfax, Tunisia | 2024*

Awarded in recognition of contributions as an animator during a successful AWS Cloud Club event. The event welcomed a large audience and featured the course "**Virtualization and Security in Cloud.**" Helped ensure smooth coordination, participant engagement, and an impactful learning experience for all attendees.

● **DRIVING LICENCE**

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**Driving Licence:** AM

**Driving Licence:** A1

**Driving Licence:** B1

**Driving Licence:** B