

Yosr Joulek

Software Developer

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Summary

Passionate computer science developer with a strong interest in emerging technologies. I contribute to the creation and improvement of web and mobile applications using modern tools such as Flutter, React, Node.js, and MongoDB. I also have hands-on experience in artificial intelligence and machine learning through projects like intelligent multi-agent chatbots. Reliable, autonomous, and certified, I adapt quickly to new technical environments.

Education

Professional Master's Degree in Computer Systems and Network Development <i>ISET Sfax</i>	<i>Loading</i>
Bachelor's Degree in Computer Science <i>Faculty of Sciences of Sfax</i>	<i>Septembre 2021–May 2024</i>
Baccalaureate – Experimental Sciences <i>Lycée 25 juillet 1957</i>	<i>Septembre 2020–June 2021</i>

Certification

Certificate of Participation – ICAISE 2025	<i>November, 2025</i>
Certificate of Participation – International Hackathon Lablab.ai (Paris) Participation with the YnityLearn project, an innovative EdTech platform developed during the hackathon.	<i>July 2025</i>
Certification CDOSS–Machine Learning with Python-CDOSS Skills: Classification, regression, clustering, data preprocessing, Python libraries	<i>May 25, 2025</i>
Certification CCNA3–CISCO-Cisco Skills: Dynamic routing protocols, network infrastructure services, basic network security	<i>December 7, 2024</i>

Professional Experience

Full-Stack Developer - Freelance <i>Manufacture Tunisienne des Ressorts (MTR)</i>	<i>September–November 2025</i>
Project : Design and development of the official corporate website to digitalize industrial activities and optimize the technical quotation request process.	
<ul style="list-style-type: none">○ Designed and implemented a modern, responsive, and UX/UI-oriented interface.○ Implemented multilingual support (French / English).○ Developed a technical quotation request form.○ Automated email workflows: quotation delivery, quotation requests reception, client invitations, secure password reset, confirmations, and contact messages.○ Implemented automatic PDF generation for client requests and quotations within a secure client area.○ Performed SEO and performance optimization using Google Lighthouse.○ Website link: https://mtr-ressorts.tn○ Technologies : Next.js 15, Node.js, Express, MongoDB, Tailwind CSS, GitHub.	

Project : Development of a custom ERP system for production and inventory management.

- Improved the user interface of an existing web application for the client.
- Delivered a more fluid, responsive, and user-friendly interface (UI/UX optimization).
- Integrated new features using React.js and Tailwind CSS.
- Collaborated via GitHub for version control and task tracking (issues, branches, pull requests).
- **Technologies :** React.js, Tailwind CSS, Github.

Academic Experience

Project : Development of a multilingual dictionary.

- Developed a multilingual web application for language learning (including Tunisian dialect support).
- Enabled full management of courses, content, words, user accounts, and reviews.
- Implemented OWASP-based security: SQL injection prevention, secure authentication, access control, and data encryption.
- Designed a responsive and user-friendly interface compatible with all platforms (web, mobile, tablet).
- **Technologies :** Python/Flask, phpMyAdmin, Bootstrap, HTML, JS, CSS.

Project : Development of a time tracking management application.

- Built a web application to manage employee working hours.
- Developed features for booking, editing, and submitting work hours.
- Implemented project management tools and admin interface for data validation and export.
- **Technologies :** PHP/Symfony, PostgreSQL.

Self-Managed Projects

- Developed an AI-powered educational web application designed to support students in their exam preparation.
- Implemented automatic generation of summaries, flashcards, and diverse exam formats (MCQs, theoretical questions, and mixed formats) from educational content, as well as full chapter generation from a single prompt.
- Designed personalized study plans based on subjects, priorities, and exam dates.
- Built an intelligent chatbot enabling natural language conversations with history, image generation (DALL·E 3), PDF generation, voice responses (TTS), and conversational-style PDF analysis.
- Developed YnityLive, a real-time quiz system for solo or group participation, featuring rankings and interactive elements.
- Integrated intelligent coaching, including a personalized coach embedded in the chatbot and a motivational coach during group quizzes.
- Implemented a notification and email system to send revision reminders, track progress, highlight unmastered topics, and deliver personalized feedback after flashcards.
- **Technologies :** React.js, Node.js, MongoDB, FastAPI (uAgents), Groq (LLaMA 3), ElevenLabs (TTS), DALL·E 3 (images).

E-commerce Web Application for IT Product Sales

June 2025

- Designed and developed a web application for managing products, quotes, invoices, and payments.
- Integrated a payment management module with real-time tracking of transactions.
- Set up a DevOps (CI/CD) pipeline to automate application deployment.
- **Technologies :** React.js, Spring Boot, REST API, Docker, GitHub

DataAnalyser – with Chatbot "Assistant ISET"

May 2025

- Developed a web application for automated dataset processing, enabling users to choose between multiple machine learning models (classification, regression, clustering) with result visualization, performance metrics, and comparison charts.
- Integrated an educational chatbot to support ISET computer science students and facilitate access to academic information.
- Chatbot features: speech recognition and synthesis, automatic translation, web data extraction (web scraping), interaction with Gemini API.
- Implemented MLOps practices to automate the machine learning pipeline.
- **Technologies :** Python, Flask, HTML/CSS/JavaScript, Bootstrap, Scikit-learn, Gemini API, NLP, MLOps, TTS.

Mobile Quiz Application "FUN QUIZ APP"

May 2025

- Designed and developed an interactive mobile quiz app offering a personalized and secure user experience.
- Implemented facial authentication using Google ML Kit to enhance access security.
- Provided multilingual support with automatic translation of categories and questions fetched from the Open Trivia Database API, using ML Kit Translation.
- Implemented light/dark mode according to user preferences.
- Integrated a notification system via Firebase to encourage regular user engagement.
- **Technologies :** Flutter, Google ML Kit, Firebase, Open Trivia API

Skills

- **Programming Languages :** Python, JavaScript, PHP, Dart, Java
- **Frameworks & Libraries :** Flutter, React.js, Node.js, Flask, SpringBoot, Next.js
- **Databases :** MySQL, PostgreSQL, Oracle, PL/SQL, MongoDB
- **Tools & Technologies :** Git, Docker, Firebase, Vagrant, Render
- **IA & Machine Learning :** NLP, clustering, classification, regression
- **DevOps/MLOps :** CI/CD, MLOps, FastAPI, Flask
- **Languages :** Arabic, French, English