PERSONAL INFORMATION

Ing/Dr. OMRANI MOHAMED AMINE

📍 5000 Monastir, Tunisia

📠 +216 52 93 95 93

✉ mohamedamine.omrani@fst.utm.tn / omranimohamedamine@gmail.com

🙂 Married with two Childs

Sex Men | Date of birth 1989 | Nationality Tunisian

PREFERRED JOB
ACADEMIC EXPERIENCE

IT Expert | University Lecturer and Researcher

Sep 2022 – Today

Head of IT Department

Private Higher Polytechnic School of Monastir(Polytech Monastir), University of Monastir

As the Head of the IT Department at Polytech Monastir, I oversee the management of IT infrastructure, ensuring its alignment with the institution's objectives. My responsibilities also include contributing to teaching, delivering lectures, and adapting study plans to meet industry demands. I played a pivotal role in preparing for the ISO 21001:2018 audit, focusing on educational management systems, and actively contributed to the ASIIN accreditation process for the Eurace label by evaluating academic programs and ensuring adherence to quality standards. Member of the educational community.

Academic

Sep 2019 - July 2021

Volunteer Teacher

Private Higher Polytechnic School of Monastir(Polytech Monastir), University of Monastir

I have taught the following courses for two years:
- Advanced Object-Oriented programming (JAVA and PYTHON)
- Programming Paradigms [Aspect oriented programming, parallel programming, functional programming, concurrent programming, recursive programming, constraint programming, logic programming]
- Full Stack Dev [Angular and Spring Boot Frameworks]
- Assist the end of studies projects in software engineering
- Organized participation in the 'Nuit de l'Info' challenge for two consecutive editions.
- Coordinated participation in Google's international HashCode competition for two consecutive editions.

Academic

Sep 2017 - June 2018

University Teacher (contractual)

Faculty of Science, University of Monastir

- Teach TDs/TPs object-oriented programming (JAVA)
- Assist two end-of-studies projects in computer science:
    1. Mobile application dedicated to facilitating foreign languages.
    2. Design and development of a commercial ERP prototype.

Academic

Sep 2016 - June 2017

University Teacher (contractual)

Higher Institute of Computer science and Mathematics of Monastir (ISIMM), University of Monastir

- Teach TDs/TPs of Algorithmics and C Programming Language (S1) and Programming workshop 2 (S2).
- Supervised an end-of-study project in computer science titled 'Design and Development of a Web Platform for the Management, Monitoring, and Evaluation of Software Projects,' based on the Symfony PHP framework.

Academic

Sep 2015 - June 2016	**Volunteer Teacher**

Faculty of Science, University of Monastir

▪ Teach TDs/TPs of C2I (S1) and Algorithmics and programming (S2).
Academic

Sep 2013 - June 2014	**Volunteer IT Trainer**

Hannibal Private Training School

As an IT trainer, I provided continuous and initial training (Programming languages, office 365, C2I, HTML, CSS, Jscript, PHP, JAVA, etc ..) under the supervision of the Ministry of Vocational Training and Employment.
Academic

PROFESSIONAL EXPERIENCE

Feb 2024 – Today	**Co-Founder and Project Manager	CODIRIS Company Inc -**

CaissaTN Project

▪ **Co-founded and led the development** of **CaissaTN**, a multi-tenant SaaS cloud platform providing smart management solutions for businesses and points of sale in Tunisia.
Oversaw the end-to-end product lifecycle: design, architecture, development, testing, deployment, and continuous improvement. Built the platform on a native microservices architecture (Spring Boot, Angular, PostgreSQL) ensuring modularity, scalability, and maintainability. Delivered core features: Sales and operations management with multi-user and multi-module capabilities;; Multilingual interfaces to support diverse markets; Secure authentication with Keyckloak. Implemented DevOps practices (CI/CD pipelines, containerization, monitoring) to streamline deployment and improve reliability. Collaborated with cross-functional teams (technical and business) to align product roadmap with market needs.

Aug 2020 – Feb 2024	**Tech Lead	Maps-IT Company Inc -**

Compaktor Project

▪ I led the development of Compaktor, a cloud-based SaaS platform designed for small, medium, and large enterprises. https://compaktor.app/.
The platform is built using Spring Boot, Angular, and PostgreSQL, and adopts a native microservices architecture to enable modularity, scalability, and maintainability. It supports multilingual interfaces, secure authentication (JWT and OAuth 2), and offers multi-user and multi-module capabilities. I also ensured the implementation of DevOps practices throughout the development lifecycle.

Imozon Project

▪ As Product Manager and Tech Lead, I led the design and development of Imozon, a full-stack web application for real estate management, tailored for property units, agencies, and real estate companies in Canada.
  The platform is developed using Spring Boot (backend), Angular (frontend), and PostgreSQL (database). It is containerized with Docker and deployed on AWS Cloud, ensuring scalability, performance, and secure access for multiple user roles.
  This SaaS solution provides intuitive interfaces for managing units, tenants, contracts, maintenance, and financial operations.

Televora Project

▪ I managed the development of televora, a web-based comparator platform for mobile and internet plans in France.
  Built with Spring Boot, Angular, and PostgreSQL, the system allows users to compare offers from different providers in real time.
  As Product Owner and Technical Lead, I was responsible for defining product features, ensuring data accuracy, optimizing performance, and managing delivery timelines for a French client.

EHealth Project

▪ In collaboration with the LABTIM research lab at the Faculty of Medicine of Monastir, I oversaw the development of EHealth, an AI-driven health platform for supporting diagnosis and health data management.
  The project uses the MERN stack (MongoDB, Express.js, React, and Node.js), integrating advanced AI modules to enhance clinical workflows.
  My role involved product specification, technical architecture, coordination with medical researchers, and ensuring secure handling of health data.

Other, Projects

▪ Throughout my career at MAPS-IT, I also contributed to dozens of web platforms and custom tools, including CMS solutions, internal dashboards, data processing tools, and automation systems. These projects span multiple domains and leverage technologies such as Java, Spring Boot, Angular, React, Node.js, MySQL/PostgreSQL, MongoDB, Docker, Keycloak, and cloud services (AWS, Azure, OVH).
  These experiences strengthened my ability to lead cross-functional teams, design scalable architectures, and deliver quality products tailored to client needs.

Aug 2022 – 2023 | ## BackOffice Developer at ValueOrbit Inc - Sweden

ValueOrbit Project

▪ I led the development of the backend side ValueOrbit (nodeJs, MongoDB and python). AI-driven Sales Execution PLatform: Connects to your CRM or replaces it, ensuring your team takes the right steps, at the right time, with the right words to close more deals consistently.

Academic

EDUCATION

2014 - 2019 | ### PhD Computer Science   (Very Honourable)

Faculty of Science of Tunis, University of Tunis El Manar

▪ Subject: "On the generation of constrained graphs, with an application to molecular graph generation"

2011 - 2014 | ### Master degree in Computer Science Engineering

Faculty of Science of Monastir, University of Monastir
▪ Specialty: Modeling of Automated Reasoning Systems

2008 - 2011 | ### License in Computer Science

Faculty of Science of Monastir, University of Monastir
▪ Specialty: Computer Science

2008 | ### Baccalaureate Degree in Computer Science
▪ Faculty of Science of Monastir, University of Monastir

▪ Subject: "On the generation of constrained graphs, with an application to molecular graph generation"

TRAINING and CERTIFICATION

2025

IEEE Professional Member – *Thomas M. Coughlin, 2025 IEEE President*
Certificate Of IEEE Membership

2024

IEEE Professional Member – *Thomas M. Coughlin, 2024 IEEE President*
Certificate Of IEEE Membership

2021

Ministry of Communication Technologies and Digital Economy of Tunisia

CNUDST Training – *provided by Genevieve Musasa*
The national university center for scientific and technical documentation

2017
Oct 2016 – Nov 2016

Online Training Workshop - Web of Science and EndNote
Science department of Thomson Reuters.

Sep 2016

Symfony Training
FormaPlus professional training center in Sousse

Jan 2016 – Feb 2016

Online Training Workshop (PYTHON and JAVA)
SOLOLEARN eLearning platform

Mai 2015 – Sep 2015

Professional internship
▪ ERNST IT Company in Monastir
▪ Specialty: Modeling of Automated Reasoning Systems

PERSONAL SKILLS

Mother tongue(s) — Arabic

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
French	Excellent	Excellent	Excellent	Excellent	Excellent
English	Excellent	Good	passable	passable	Good
Deutsch	passable	passable	passable	passable	passable

Organisational and Communication skills
Managerial skills and Job-related skills

▪ Good communication skills acquired through my experience as a teacher and especially as an organizer of international competitions (Nuit de l'info, Google HashCode).
▪ Good managerial skills acquired through my experience as project manager responsible for a team of dozens people during my mission in many projects.

Computer skills	▪ Software engineering
	▪ Algorithmics
	▪ Programming Paradigms (P.O.O, POA , Parallel, Functional, Concurrent programming, etc..
	▪ Conceptual modelling of computer systems
	▪ Constraint Programming (ILOG, Toolbar, Numberjack)
	▪ Mathematical Programming
	▪ Patterns Design (MVC, MVVM and Frameworks)
	▪ IT Frameworks and Languages (all languages)
	▪ API and IT Tools (Maven, Docker, Git, etc..)
	▪ SGBD (sql/plsql/ JPA) and OS administration (Unix & windows)
	▪ FullStack Web Dev (Angular, SpringBoot, JEE, JS and PHP)
	▪ Software Dev (JAVA Swing and Fx)
	▪ Cloud Computing and DevOps

Driving licence   Driving licence category: A

Other skills   Participation in the re-orientation exams organized by the University of Monastir from 27 to 29 March 2017
Charity and association activities: The Tunisian Red Crescent, the local authority in Teboulba,
▪ Participation in Health, Diabetes and Blood Pressure Day (February 05, 2017)
▪ Participation in Health Day, Eye Diseases (February 16, 2017)

SCIENTIFIC PUBLICATIONS

Journal Preprint Paper
Approximating orthogonal semi-nonnegative matrix factorization
Omrani Mohamed Amine, Wady Naanaa
Sep 2025
Cluster Computing The Journal of Networks, Software Tools and Applications, ISSN: 1383-7133 (**Q1**)
Indexed in DBLP, Scopus, and Thomson Reuters
Impact Factor: SJR 2024 1.040 Q1 H-INDEX 80
https://link.springer.com/journal/10586

Conference Paper
Generating All Connected and Non-Isomorphic Regular Graphs Using a Constraint-Based Approach
November 2025, Ho Chi Minh City, Vietnam
17th International Conference on Computational Collective Intelligence (ICCCI 2025)
https://iccci.pwr.edu.pl/2025/
Conference Class: B

Conference Paper
Real-Time Automated Detection of Violent Content in Animated Cartoons Using YOLO
November 2025, Ho Chi Minh City, Vietnam
17th International Conference on Computational Collective Intelligence (ICCCI 2025)
https://iccci.pwr.edu.pl/2025/
Conference Class: B

Conference Paper
Classification of Violent Scenes in Cartoon Videos Using Deep Learning Techniques
November 2025, Ho Chi Minh City, Vietnam
17th International Conference on Computational Collective Intelligence (ICCCI 2025)
https://iccci.pwr.edu.pl/2025/
Conference Class: B

Journal ArticleConference Paper
Advances in Molecular Graph Generation: Unraveling Symmetry and Enhancing Connectivity
Omrani Mohamed Amine, Wady Naanaa
October 2024, Sousse, Tunisia
2024 IEEE/ACS 21st International Conference on Computer Systems and Applications (AICCSA)
https://aiccsa.net/AICCSA2024/

Conference Class: C

Journal Article
On generating random graphs with hard and soft constraints
Omrani Mohamed Amine, Wady Naanaa
October 2020
International Journal of Computer Aided Engineering and Technology (Q3)
DOI: 10.1504/IJCAET.2022.10031198

Journal Article
Constraints for generating graphs with imposed and forbidden patterns: An application to molecular graphs
Omrani Mohamed Amine, Wady Naanaa
October 2019
Constraints, ISSN: 1383-7133 (**Q2**)
Indexed in DBLP, Scopus, and Thomson Reuters
Impact Factor: 1.2
https://link.springer.com/journal/10601/

Journal Article
On Generating Random Graphs Based on Fuzzy Proximity Relationships between Vertices
Omrani Mohamed Amine, Wady Naanaa
August 2019
Research in Computing Science, ISSN: 1870-4069
http://rcs.cic.ipn.mx/
Indexed in **DBLP**

Conference Paper
GRAPH GENERATION WITH IMPOSED AND FORBIDDEN PATTERNS
Omrani Mohamed Amine, Wady Naanaa
18–20 October 2017, Algarve, Portugal
14th International Conference on Applied Computing 2017
https://computing-conf.org/oldconferences/2017
Conference Class: C

Conference Paper
A constrained molecular graph generation with imposed and forbidden fragments
Omrani Mohamed Amine, Wady Naanaa
18–20 May 2016, Thessaloniki, Greece
9th Hellenic Conference on Artificial Intelligence (SETN 2016)
http://setn2016.csd.auth.gr/
Conference Class: C

≫