MAJDI MUSTAFA SUKKAR

PhD in Computer Engineering | AI & Intelligent Systems Researcher



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Syria, Reef Dimashq

Nationality: Syrian

Marital Status : Married

PROFESSIONAL SUMMARY

An AI researcher and academic holding a PhD, with over twenty years of experience across academic, industrial, and administrative sectors. I specialize in deep learning, computer vision, autonomous systems, and IoT security. My research has been published in prestigious journals—such as IEEE Access and ETT—and other Q1-ranked publications; I also hold patents. I possess extensive experience in university teaching, postdoctoral research, enterprise software development, and banking sector IT. Fluent in Arabic and English, I am fully prepared to make an immediate contribution to research institutions.

CORE COMPETENCIES

Deep Learning & CV	**Autonomous Systems**	**IoT & Cybersecurity**
Product Management	**AI Research & Publishing**	**Banking FinTech**
Team & Project Leadership	**University Teaching**	**Explainable AI (XAI)**

WORK EXPERIENCE

Senior Postdoctoral Fellow & Assistant Professor

Marwadi University – Gujarat, India *May 2024 – August 2026*

- Conducting advanced research in Deep Learning, Computer Vision, and Intelligent Systems, resulting in Q1-indexed journal publications (IEEE Access, ETT).
- Designed and deployed novel AI architectures for real-time object detection/tracking in autonomous vehicles.
- Teaching undergraduate and postgraduate courses: AI, Machine Learning, Computer Vision, Python, Java, and Data Structures.
- Supervising Bachelor's and Master's student theses; mentoring research methodology, model development, and scientific writing.
- Supervised Bachelor's-level graduation projects applying AI to industrial and medical/healthcare use cases.
- Contributing to curriculum development, academic committees, and interdisciplinary research programmes.
- Filed 1 Indian patent (2026) in electromagnetic signal processing for metal detection, with 4 additional patents under review across healthcare AI, autonomous systems, smart energy, and biological age & genetics.

Lecturer – Computer Engineering

Syrian Private University (SPU) – Damascus, Syria *Oct 2020 – Oct 2022*

- Delivered lectures in Java, Python, C++, Artificial Intelligence, and Communication Skills.
- Supervised applied student projects in AI and software development; organised technical workshops and seminars.
- Supervised more than 5 undergraduate student groups on applied AI graduation projects, including pedestrian detection, facial recognition, and other diverse AI applications.
- Contributed to curriculum enhancement activities and academic support programmes.

Head of Department & Software/Database Administrator

Commercial Bank of Syria (CBS) – Syria *2011 – 2020*

- Led a cross-functional IT department (software development + database administration) for one of Syria's largest commercial banks.
- Architected and delivered enterprise banking applications in C#/.NET/SQL Server using Agile methodology.
- Spearheaded the bank's digital transformation initiative — optimising workflows, improving system security, and reducing operational overhead.
- Managed, mentored, and evaluated a team of software engineers and DBA specialists.
- Implemented robust cybersecurity measures across mission-critical banking systems.

Product Manager & Developer

NAT NET Toshiba Laptop – Syria *2009 – 2011*

- Managed end-to-end delivery of an Arabic-language e-commerce platform — from requirements gathering through deployment.
- Coordinated Agile-based sprints, UAT, localisation testing, and customer experience (CX) improvements.
- Collaborated with marketing and technical teams to resolve product issues and maximise user satisfaction.

Trainer & IT Manager

TAFE Arabia Technical Education – Saudi Arabia *2007 – 2009*

- Delivered computer-skills and IT-systems training to diverse learners within the Saudi educational sector.
- Managed campus IT infrastructure, digital learning platforms, and technical maintenance operations.

Technical Support & Marketing Assistant

Obeikan Home Interactive (OHI) – Saudi Arabia *2001 – 2003*

- Provided frontline technical support for software products in Arabic-speaking Saudi market.
- Assisted in marketing campaigns, product demonstrations, and customer-engagement activities.

EDUCATION

PhD in Computer Engineering

Marwadi University – India *2019 – 2024*

- Thesis: Real-Time Pedestrian Detection & Tracking Using Deep Learning
- Specialisation: AI · Deep Learning · Computer Vision · Autonomous Systems · Python & C++

Master's Degree in Web Science

Syrian Virtual University (SVU) – Damascus, Syria *2013 – 2017*

- Thesis: Intelligent System for Classification and Estimation in the Syrian Stock Market

Bachelor's Degree in Information Technology

Syrian Virtual University (SVU) – Damascus, Syria *2006 – 2011*

SELECTED PUBLICATIONS

Research focus: object detection and tracking, algorithm development for IoT applications, and interactive security systems.

1. Sukkar, M. et al. **"Dynamic Multi-Objective Optimization in Vehicular Fog Computing With NSGA-II+."** *Transactions on Emerging Telecommunications Technologies, 36(10), 2025.*
2. Sukkar, M. et al. **"A Survey of Deep Learning Approaches for Pedestrian Detection in Autonomous Systems."** *IEEE Access, 2024.*
3. Sukkar, M. et al. **"Enhancing Pedestrian Tracking in Autonomous Vehicles by Using Advanced Deep Learning Techniques."** *Information, 15(2), 2024.*
4. Sukkar, M. et al. **"Improve Detection and Tracking of Pedestrian Subclasses by Pre-Trained Models."** *Journal of Advanced Engineering and Computation, 6(3), 2022.*

5. Sukkar, M. et al. **"Using Partial Transfer Learning to Improve Detection of Children and Elderly Pedestrians."** *International Journal of Early Childhood Special Education, 14(5), 2022.*
6. Sukkar, M. et al. **"Real-time Pedestrians Detection by YOLOv5."** *IEEE ICCCNT 2021, 2021.*

PATENTS

- **Intelligent Metal Detection System Using Deep Learning and Smartphone Magnetometer Sensors — Indian Patent No. 202621009369 (Filed 2026). [Published]**
- Adaptive Intelligent System for Healthcare Applications. [Under Review]
- Adaptive System for Autonomous Vehicles. [Under Review]
- Artificial Intelligence-Driven Wind System for Energy Generation. [Under Review]
- AI-Based System for Biological Age and Genetic Assessment. [Under Review]

TECHNICAL SKILLS

- Python · C++ · Java · C# · SQL
- TensorFlow · PyTorch · OpenCV · Scikit-learn
- YOLO · Transformers · Generative AI · LLMs
- Explainable AI (SHAP, LIME)
- Federated Learning · Edge AI
- SQL Server · MongoDB · PostgreSQL · ETL · Power BI
- Git · Agile/Scrum · JIRA · UAT · QA
- Product Management · Technical Documentation
- Team Leadership · Strategic Planning
- Cloud basics (AWS/Azure) · IoT Security

LANGUAGES

Language	Listening	Reading	Spoken	Production	Writing
Arabic	Native	Native	Native	Native	Native
English	Advanced	Advanced	Advanced	Advanced	Advanced

RESEARCH INTERESTS

- Deep Learning & Computer Vision
- Autonomous Vehicles & ITS
- Healthcare AI & Bioinformatics
- Explainable AI (XAI)
- IoT Security & Federated IDS
- Generative AI & LLMs
- Multi-Objective Optimization
- Smart Energy & Embedded AI

PROFESSIONAL STRENGTHS

✔ Publishing in top-tier (Q1/Q2) indexed journals and conferences (IEEE Access, ETT, MDPI).

✔ Bridging academia and industry — from lab-bench AI research to deployed banking and product solutions, with a focus on connecting research to industrial application in autonomous vehicles, biological age assessment, and cybersecurity.

✔ Long-standing management and industry track record spanning nearly 20 years — including leading software development for the banking/ATM systems division as Head of Department at a major Syrian bank, product management at Toshiba Laptop, and training/educational programmes in Saudi Arabia and the UAE.

✔ Cross-cultural experience: Syria , India , Saudi Arabia , UAE — well-suited for Gulf and international environments.