

Mahmoud Mohamed Mahmoud

AI Developer | Computer Vision Engineer

Contact Information

- Dubai, UAE
- Mahmoud_2001M@outlook.com
- +971 52 996 8954
- .LinkedIn: linkedin.com/in/doublem70
- GitHub: github.com/DoubleM01
- Portfolio: doublem01.github.io/DoubleM

Professional Summary

- 3+ years in AI/ML & computer vision—medical diagnostics, sports tech, virtual fitting and chatbots development.
- End-to-end expertise: data prep, feature engineering, model training, deployment.
- Strong Python developer with REST API and edge-device (Jetson) deployment experience.

Technical Skills

- Programming Languages:: Python · C# · C++ · MATLAB
- Libraries: Pandas · NumPy · sklearn · TensorFlow · PyTorch
- Machine learning: Decision trees · K mean clustering · KNN · Anomaly detection · Linear regression · Logistic regression.
- Deep Learning: · Vision Transformers · YOLO · CNN · LSTM · TTS · Generative AI
- Computer Vision & 3D: MediaPipe · SMPL-X · Open3D · Blender API · OpenCV · Segmentation · Tracking · Detection · Object matching
- NLP & LLMs: LangChain · Hugging Face · GPT · Deep seek · Open AI · n8n
- Web & APIs: Flask · FastAPI · REST APIs · Micro-services
- Cloud & Deployment: AWS · Google Cloud · Azure · NVIDIA Jetson · Docker
- Database: SQL · Non SQL · Vector databases · Semi structured databases · JSON · XML.
- Soft Skills: Problem Solving · Team Leadership · Communication Skills · adaptability

Professional Experience

1. AI Engineer & Freelance Developer

Self-Employed (United Arab Emirate - Egypt) · Jul 2022 – Present

- Delivered AI solutions across computer vision, NLP, and LLM chatbot integrations.
- Developed and deployed RESTful services with Flask & FastAPI.
- Built CI/CD pipelines for model versioning and automated inference.

2. Software Engineer

Khater Sports, Egypt · June 2022 – February 2024

- Designed middleware and mobile endpoints to integrate physical scoreboards with apps.
- Optimized real-time data streaming and latency for live sports displays.
- Worked as full stack with Xamarin and C#.

3. AI Research Intern

Nanyang Polytechnic, Singapore · Jul 2023 – August 2023

- Created a YOLO-based gait disorders detection model (84% accuracy) in TensorFlow.
- Performed data augmentation, annotation and hyper-parameter tuning for images and human pose key points.
- Performed real time detection with GPU optimization using CUDA.

4. Programming Lecturer & Instructor

IEEE BUE · October 2024 – November 2024

- Delivered lectures on dynamic programming and algorithm design to 50+ students.

5. Technical Coordinator

IEEE BUE Student Branch · 2020 – 2023

- Organized workshops and led teams in national/international coding competitions.
- Participated in IEEEExtreme competition for complex problem solving

6. Start-Up founder

MYM Smart Home Solutions · 2020 – 2022

- Developed IoT-driven home automation systems; collaborated on hardware/software integration.
- Implemented many ecosystems solutions for better user experience.
- Developed MYM1 voice assistant which supported Arabic language in homes.
- Developed real time activity detections and security cameras optimization with custom deep learning models.

Key Projects

- Spine Deformity Detection (2023–2025): Three-phase diagnostic pipeline using ViT, OpenCV, TensorFlow. <https://github.com/DoubleM01/Detection-of-spine-deformitiesusing-deep-learning-models->
- Virtual Fitting Room (2023–2024): Real-time try-on with SMPL-X, MediaPipe, YOLO, Open3D, Blender.
- Workout Chatbot Assistant (2025): Scheduler and analytics via Hugging Face/OpenAI APIs; . <https://github.com/DoubleM01/Workout-chatbot>
- ZenAI: wellbeing agentic AI developed in Dubai AI Week with GPS and fitness data tracking. Leading to automated decision making with reasoning features. Deployed with fastAPI with HTML pages and JavaScript
- MIRA avatar: developed a system for animating static photos and avatars with Text to speech (TTS) features and 8 types of emotional facial expressions. <https://github.com/DoubleM01/MIRA-Virtual-Avatar>

Education

- Bachelor of Engineering. Computer Engineering (First Class Honors “A+”). London South Bank University · 2020 – 2024
- Bachelor of Engineering. Computer Engineering . British University in Egypt · 2019 – 2024

Certifications

- Generative AI Explained (NVIDIA, 2025)
- TensorFlow Deep Learning (IBM, 2023)
- Computer Vision & Image Processing (IBM, 2023)
- AI Training Program (Zewail City, 2023)

Achievements

- Top 5 Research & Design Projects, BUE (2024)
- Ranked 6th UK-grading in BUE cohort
- Global Top 500, IEEEExtreme 16.0
- 2nd Place, Intel ISEF Egypt (Software, 2018)
- Top 11 team in Hackmaster Agentic AI hackathon, Dubai AI week (2025)