HOSSAM HANY ELGANAINY
AI Engineer

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SUMMARY

Recent Artificial Intelligence graduate with 1+ year of professional experience delivering end-to-end AI solutions. Experienced freelancer with proven ability to serve hundreds of users through production-ready applications. Specialized in machine learning, computer vision, and backend development with strong project management skills from requirement gathering to deployment.

EDUCATION

Bachelor of Artificial Intelligence | Kafr El-Sheikh University, Egypt | Sep 2021 – July 2025
Coursework: Machine Learning, Deep Learning, Computer Vision, NLP, Data Structures, Algorithms

PROFESSIONAL EXPERIENCE

Freelance AI Engineer | Self-Employed | Cairo, Egypt | Oct 2024 – Present

- Delivered 3+ end-to-end AI solutions for diverse clients across healthcare, fitness, and safety domains
- Developed MeasureMeants body measurement platform achieving 95% accuracy (Feb 2025)
- Built Sports Chatbot serving 500+ users with 120ms response time for personalized fitness recommendations (Apr 2025)
- Engineered real-time car accident detection system reducing emergency response time by 40% (Oct 2024)
- Managed complete project lifecycle from client requirements gathering to deployment and delivery

Backend & AI Developer | Cowdly (Startup) | Cairo, Egypt | Feb 2025 – Jun 2025

- Developed backend infrastructure and AI solutions for startup's core product offerings
- Built scalable APIs and integrated machine learning models into production systems
- Collaborated with cross-functional team to deliver AI-powered features from concept to deployment
- Contributed to rapid development cycles typical of startup environment with agile methodologies

Generative AI Trainee | DEPI, AMIT | Kafr El-Sheikh, Egypt | Apr 2024 – Nov 2024

- Honored to receive recognition from Dr. Amr Talaat, Minister of Communications and Information Technology (MCIT), Egypt, for being selected among the best contributors in the Digital Egypt Pioneers Initiative (DEPI) program

PROJECTS

Islamic Chatbot – Conversational AI System (Backend & AI)

- Created NLP-powered chatbot trained on Islamic religious content using transformer models
- Configured Django backend with PostgreSQL database managing 10,000+ conversations and user data
- Optimized context-aware responses with 90%+ accuracy in domain-specific queries
- Launched public web interface with multilingual support (Arabic/English)

Text-to-Image Generator (DEPI & AMIT) (AI)

- Constructed GANs and Diffusion-VAE models for generating realistic facial images from text descriptions
- Utilized BERT embeddings for text understanding and DCGAN architecture for image synthesis
- Secured stable model training on CelebA dataset (200,000+ images) with enhanced image quality metrics
- Published model with REST API for integration into production applications

Arabic Text Categorization – NLP Classification (AI)

- Classified Arabic news articles into 7 categories using SANAD dataset (45,500+ articles)
- Applied advanced text preprocessing, feature engineering, and transformer-based models
- Obtained 92% accuracy using BERT-based Arabic language models
- Launched production-ready API processing 1,000+ classification requests per minute

PROFESSIONAL CERTIFICATIONS

Mathematics for Machine Learning | Imperial College London (Coursera)
Machine Learning | Stanford University & DeepLearning.AI (Coursera)

KEY ACHIEVEMENTS & IMPACT

- Successfully delivered 15+ production-ready AI applications with real-world client adoption
- Generated revenue through freelance AI engineering services across multiple industry verticals
- Integrated AI/ML models with scalable backend architectures in unified full-stack solutions
- Achieved consistent 30+ FPS real-time processing in computer vision applications
- Active GitHub contributor with 16+ repositories and 50+ collaborative projects

TECHNICAL SKILLS

Programming Languages: Python, SQL
Machine Learning & AI: PyTorch, TensorFlow, scikit-learn, Computer Vision, NLP, Deep Learning, Model Training, Model Optimization
Backend Technologies: Django, REST APIs, PostgreSQL, SQLite, Database Design
Frameworks & Libraries: OpenCV, NLTK, spaCy, MediaPipe, YOLO, Transformers
DevOps & Tools: Docker, Git, GitHub, CI/CD, Streamlit, Agile Development
Languages: Arabic (Native), English (Fluent)