Youssef Mohamed Mahmoud Elmeligy

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EDUCATION

Galala University, Faculty of Computer Science and Engineering – Suez, Egypt **October 2023 - July 2027**
Bachelor of Science in Artificial Intelligence

SKILLS

Technical Skills: Python, Machine learning, C++, HTML, CSS, JavaScript, SVM, NLP, Regression, KNN, Naive Bayes, OpenCV, SQL, Database Integration.
Soft Skills: Leadership, Project Management, Presentation Skills, Microsoft, Office Marketing

RELEVANT COURSEWORK

Computer Science: Algorithms and Data Structures, Theory of Computation, Software Engineering and Design, Programming Languages & Techniques, Architecture, Discrete Mathematics, Artificial Intelligence.

Math: Multivariable Calculus, Vector Calculus, Differential Equations, Linear Algebra, Statistics and Probability.

EMPLOYMENT EXPERIENCE

Galala University| Student Part-Time IT| Galala University **July 2025 – Present**
• Balancing academic workload with part-time employment.
• Gained practical experience in IT support and troubleshooting.
• Assisted in maintaining the university's computer systems and networks.

AMGroup | AI System Developer | Nasr City, Cairo **November 2025 – Present**
• Contributing to the development and deployment of intelligent AI systems across the company's technology ecosystem.
• Design and implement intelligent solutions aligned with company objectives.

PUBLICATIONS

- **Deep Learning for Brain Tumor Radiogenomic Classification: A Multi-Parametric MRI Approach**
  IEEE, International Conference on Smart Digital Green Technologies and Artificial Intelligence Sciences **(CSDGTAI 2024)**.

- **Explainable AI-Based Enhanced Classification of Gravitational Wave Anomalies Using Vision Transformers**
  International Conference on Student Research in Computing **(SRC 2025)**, Zayed University, Dubai.

- **Solar Power Forecasting for Grid Stability Based on Machine Learning Approach**
  International Conference on Student Research in Computing **(SRC 2025)**, Zayed University, Dubai.

- **Swin Transformer for Bone Metastasis Classification: a Comparative Study with Transfer Learning Models**

IEEE, The 5th International Telecommunications Conference **(ITC-Egypt 2025)**.

- **Enhanced Gender Classification in Panoramic Dental X-Rays Based on Deep Learning and Hybrid Swarm Algorithm**
  IEEE, The 5th International Telecommunications Conference **(ITC-Egypt 2025)**.

- **Advancing Real Time Military Aircraft Detection: a Comprehensive Comparative Benchmark of Object Detection Frameworks**
  IEEE, The 5th International Telecommunications Conference **(ITC-Egypt 2025)**.

PROJECTS

- **AI-Powered Skin Cancer Classification**
  Deep learning model for early skin cancer detection convolutional neural networks (CNN).
- **Chronic kidney Disease Prediction**
  Created a web application using StreamLit and Machine Learning techniques to predict chronic kidney disease.

- **Home Automation System**
  Created a home automation system using ESP8266 with temperature, humidity, gas, and fire detection sensors, Enabled remote monitoring and control via the Blynk app with automated safety alerts.

- **Bus System Management Project**
  Developed a C++ application for managing bus schedules, ticket bookings, and customer information, Included real-time tracking and route optimization for improved efficiency.

- **Bank Management System Project**
  Built a C++ bank management system using OOP with functionalities for account creation, deposits, withdrawals, and balance checks.

LEADERSHIP & VOLUNTEER EXPERIENCE

Vice Head, Offline Marketing
Team *Rally Society* **August 2024 – January2025**

Projects Management Member
Google Developers Student Club **(GDSC)** **March 2024 – September 2024**

Vice Head, Marketing
Enactus **August 2025 – Present**

ADDITIONAL EXPERIENCE

Content Creator | Artificial iNtelligence YouTube Channel **August 2024 – present**
Instructor, Structured Programming with Python, Online Course
- Designed and delivered structured programming lessons, focusing on Python programming fundamentals.
- Helped students grasp core concepts.
- Engaged with students and provided valuable insights and explanations to help them understand complex concepts.

LANGUAGES

- Arabic **(Native proficiency)**
- English **(Fluent)**

CERTIFICATIONS

- **SDG International | Hany Moustapha Posters and Papers Awards 2024 (CSDGTAI 2024)**.
  Awarded for the Best Second Paper: "Deep Learning for Brain Tumor Radiogenomic Classification: A Multi-Parametric MRI Approach"
- **ALX-AiCE - AI Career Essentials Program** – ALX
  Successfully completed an 8-week program focused on AI career development, solving real-world challenges such as improving Waga's VacAI app. Developed skills in problem-solving, collaboration, communication, and presentation, while exploring global opportunities and enhancing my personal brand.

- **What is Innovation** – Arizona State University
  Successfully completed a course from the #1 institution in innovation, gaining valuable insights into the transformative power of innovation in driving progress.
- **Core Project Management Team Member** – Google Developer Student Club **(GDSC)** | 2023-2024
  Successfully completed my role as a core team member, collaborating on diverse projects to foster innovation and growth.

- **AWS Academy Cloud Foundations** – AWS Academy
  Successfully completed the 20-hour AWS Academy Cloud Foundations course, gaining a strong understanding of cloud computing and AWS services.

- **The C++ Learning Guide** – Udemy | April 2024
  Completed an in-depth course on C++ programming, covering key concepts such as syntax, data structures, algorithms, and best practices for writing efficient and scalable C++ code.

- **Mastering Object-Oriented Programming (OOP) using C++ – MaharaTech | January 2024**
  Successfully completed a course focused on mastering Object-Oriented Programming concepts using C++.

- **Introduction to Machine Learning** – IEEE Student Club, Galala University | January 2024
  Completed a foundational course on Machine Learning, covering key concepts such as supervised and unsupervised learning, model evaluation, and real-world applications.