

Alaa Hussien Fathy

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🌐 LinkedIn 🐙 Github 🏆 kaggle

PROFILE

Artificial Intelligence Engineer with a strong foundation in AI, machine learning, and deep learning. Passionate about leveraging data-driven solutions to tackle complex challenges. Skilled in computer vision, NLP, and cloud computing with hands-on experience in diverse projects. Enthusiastic about applying AI techniques in innovative and real-world applications.

EDUCATION

9-Month Diploma (ITI) Information Technology Institute ,(MCIT) 10/2024 – 07/2025
Ministry Of Communications And Information Technology , AI track
,Mansoura Branch

Faculty of Artificial Intelligence, Kafrelsheikh University 10/2020 – 07/2024
BS Artificial Intelligence
GPA: 3.96

Relevant Courses:

Math for AI Machine Learning Deep Learning Cloud Computing
Big Data Natural Language Processing Computer Vision

INTERNSHIPS

Digital Egypt Pioneers Initiative (DPEI) @ AMIT 07/2024
AI & Data Science - Microsoft Machine Learning Engineer

Data Analyst Intern | MeriSKILL 09/2023

- Analyzed **sales data** using Power BI to derive insights and trends.
- Processed and visualized **Diabetes Patients Dataset** for healthcare analysis.
- Developed an **HR Analytics Dashboard** using Python and Power BI.

Business Intelligence Trainee | Information Technology Institute(ITI) 07/2023

- Developed **data warehouse solutions** and optimized **database management**.
- Conducted **statistical analyses** using **Power BI, Tableau, and Excel**.
- Visualized data trends to support business intelligence operations

SKILLS

- Programming Languages: Python, C++
- Artificial Intelligence & Machine Learning: Deep Learning, Natural Language Processing (NLP), Computer Vision
- Libraries & Frameworks: TensorFlow, Keras, PyTorch, OpenCV, spaCy, NLTK, Transformers (Hugging Face)
- Data Science & Visualization: Data Analysis, Power BI, Tableau
- Software Development: Object-Oriented Programming (OOP), Data Structures & Algorithms
- Libraries: Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn

PROJECTS

Research_paper_summarizer 🔗

- Developed a **multi-agent system** for end-to-end automation of research paper analysis.
- Automated the **discovery, extraction, and summarization** of academic papers

Image Inpainting Using GAN 🔗

- Implemented an end-to-end GAN-based solution for **image completion**.

Part-of-speech_arabic-text

- Built a **POS tagging system** for Arabic text using deep learning.
- Utilized the **asafaya/bert-base-arabic** model from Hugging Face Transformers.

Rossmann Store Sales – Time Series Forecasting

- **Perform detailed analysis** on Rossmann store sales data.
- **Apply forecasting models** and evaluate them using competition metrics.

Two-Way Sign Language Translator (Graduation Project)

- Designed an AI-powered **sign language translator** for real-time text conversion.
- Integrated **computer vision and NLP models** for seamless translation.

Autism Detection Using YOLO v8

- Trained a **YOLO v8 model** for early autism detection using facial patterns.
- Utilized **deep learning techniques** for precise feature extraction.

Brain Tumor Classification

- Developed a **CNN model** to detect tumors from MRI scans with high accuracy.
- Applied **image preprocessing and augmentation** for better performance.

Sentiment Analysis Using NLP

- Developed a sentiment classification system using **TF-IDF** feature extraction and a **Support Vector Machine (SVM)** classifier

OCR Project Using Computer Vision

- Built an **Optical Character Recognition (OCR) system** using OpenCV and Tesseract.
- Enhanced text extraction from scanned documents with high accuracy.

CERTIFICATES

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|-------------------------------|---|-------------------------|
| • Machine Learning - Coursera | • Deep Learning - Coursera | • Generative AI - Udemy |
| • OOP- maharatech | • Data Structures and Algorithms in python - datacamp | |

RESEARCH & PUBLICATIONS

Optimizing Medical Image Classification: Leveraging Advanced Segmentation Models for Enhanced Object Detection in Real-World Scenarios

Published in: IEEE Xplore during the 2024 International Conference on Future Telecommunications and Artificial Intelligence (IC-FTAI)

ACTIVITIES & INVOLVEMENT:

Data Structures Member at **Google Developer Student Club (GDSC)** – 2023 *Worked on strengthening core CS concepts and contributed to peer learning and problem-solving initiatives.*

Participated in the **International Collegiate Programming Contest (ICPC)** – 2022 *Engaged in algorithmic problem-solving and team-based programming challenges.*

Member of **IEEE – Machine Learning Track** – 2022 *Collaborated in technical sessions, workshops, and research discussions in the ML domain.*

SOFT SKILLS

Communication Skills

Teamwork

Self Study and Continuous Learning

Problem Solving Skills

LANGUAGES

Arabic (Native)

English (B2)