# Ahmed Hafez

## AI Engineer



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Exempt

### Summary:

An AI Engineer who aims to create AI-based applications in fields such as Computer Vision, Neuroscience, Psychology, and NLP, with a concrete background in Problem Solving, Competitive Programming, Mathematics, and Data Science. Alongside the ability to integrate AI in multiple Technologies such as Embedded Systems, IoT, Mobile App Development, and more.

### Work Experience:



(2020 - Present)

- · Working on projects related to connecting AI with multiple frameworks such as flutter and react native.
- · Provide courses about advanced topics related to AI such as meta-learning, statistical tests, and genetic algorithms.

### Orange Digital Center Egypt Al Engineer

(July 2022 - November 2022)

- · Responsible for AI Department and Software planning phase from an AI perspective.
- · Was responsible for Training students and working with them on their Graduation Projects related to AI and Deep learning; In addition to integrating AI with multiple fields and technologies.

### IT-Sharks (Part Time/Freelancing) Machine learning Engineer

( Dec 2021 - Present )

· Work on research papers implementation and apply AI in the medical field and computer vision.

## AMIT Learning (Part-Time)

( Nov 2020 - Nov 2021 )

Al Instructor

- · Work on projects in Data Science and NLP.
- Record videos about AI and what to do to be updated with its new features, algorithms and applications.

# **QN** Academy

(2020 - April 2021)

Al Instructor

- Helped in marketing for the academy as a new courses provider.
- · Provided AI courses for beginners.

## Blue Vision (Start-up)

(Jan 2020 - Dec 2020)

Al Consultant

- Helped in creating their main application (an automated interview tool to hire based on personality type).
- · Reformed the system structure.
- Helped in Integrating AI with microcontrollers.

# **iNetworks**

### (June 2018 - September 2018)

- · Learned about advanced topics in Al such as ( clear unbalanced data, data augmentation, web scrapping from websites, features engineering, data engineering, databases, and model automation.
- · Worked on projects such as (semantic similarity of Arabic texts, computer vision with Augmented reality).

# Lamarkaz Blockchain Researcher

## (August 2017- Feb March 2018)

- · Learned about Mining using C++, mining techniques, and smart contracts.
- · Helped in developing their new token and how to market for it.
- Wrote a part of the token documentation and helped in forming its architecture.

### Education:

### Bachelor of Computer Science (2016 - 2020)

- Misr University for Science and Technology
- CGPA: 3.97 A\* (Top of my patch)
- Graduation project: Excellent
- Assisted in another 7 Projects such as Home Automation, Intercom using face recognition, and more.

## Awards & Competitions:

### **ACM ECPC**

(2017 - Present)

## **Competitive Programming**

- 5 Times ACM/ Ecpc participant.
- MustCPC / AzharCPC Community Coach.
- · Solved over 500 problems with different topics such as Dynamic Programming, Graphs, recursion, backtracking, binary search, math, dp, and more.

### **IEEEXtreme**

(2022)

### **Competitive Programming**

- · Got the 45th Place in Egypt, and the 800th in the Global Rating.
- · Was the Trainier of over 10 Teams from Al Azhar, Ain Shams, and Future University.

# NASA Space Apps

(2020 and 2022)

## Solution Challenge

First Participation (2020):

- Got the Second place in Egypt and was responsible for the Software Engineering part of the project. Second Participation (2022):
- VIP Guest, Technical Mentor, and Sponsor.

### InnovationHub Entrepreneurship Competition

## ( December 2019 - June 2020)

- Passed over 110 teams, got through two qualification rounds.
- learned all about entrepreneurship skills: planning, funding, pitching, marketing, target segment and more.

### **Eyouth**

**Incubation & Ideas Evaluation Competition** 

(2020)

Skills:

### **Programming Languages:**

- C/C++
- Python
- Java
- C#
- PHP
- JavaScript

### DataBases:

- Mongo DB
- SQL Database
- Oracle Database
- Firebase

#### Cloud:

• AWS for ML (Good)

### Frameworks:

Anaconda, IBM Watson, Azure, Wit.ai, React Native, NodeJs, Flutter, Arduino, raspberry pi

#### **Architectures & Business Tools:**

**Architecture Patterns:** MVC, MVVM, MVP, Microservices, and more.

**Design Patterns:** Solid Principles.

DevOps, DataOps, and MLOps Tools: Cron jobs, Trello, Slack, ClickUp, Flask, Streamlit,

Fastai, Jenkins, Dockerization, and more.

Al Related Tools: Jupyter Notebook, TF Hub, Hugging face, Tensorflow, PyTorch, Power BI,

Tableau, and Meta-Learning.

### Social Skills:

- Team Leadership
- Critical Thinking
- Brainstorming
- Team Management
- Project planning
- Data\ Risk Analysis
- Motivational Speaking

### Languages:

• Arabic : Fluent

• English : Excellent

Spanish: Good

#### **Mentors:**

- Coach\ Dr. Mohamed Abd El Wahab
- Dr. Mostafa Saad

### Courses:

- Machine Learning Nanodegree (Udacity)
- Deep Learning Nanodegree (Udacity)
- Deep Learning Specialization (Coursera)
- Algorithm Analysis (PST)
- CS 50 Algorithm (Edx)
- Python for AI (Udacity)
- Competitive Programming (Coach Academy)
- + Over 50 Al Other Courses on multiple platforms such as Udemy, Udacity, and Coursera.

## Projects:

**A Flying Drone:** Using 3D printed body, Ardupilot and Bluetooth module to give directions from a Remote Control.

An Obstetrical Avoiding Car: Using raspberry pi 4, 5 MB Camera and OpenCV.

**Skin/ Lung/ Breast Cancer Prediction:** Using a mixture of native and pre-traiend CNN models.

**Object Detection (Basic & Customized):** Using YOLO with multiple versions in addition to a customized models that can detect only specific objects.

**Brain Tumor Segmentation:** Classify and segment brain tumor using CNN and U-Net. Transfer learning Automation models: using Auto-keras to create a template for training image data, with the ability to customize it.

**Remember Me:** A flutter application to help Alzheimer patients not to forget anything or be lost at any location, with an integrated face recognition model.

**Awakey:** A mobile application that was built to help astronauts have a sustainable life in the space station.

**Chest X-Ray Classification:** Binary classification model to determine whether that patient is Normal or has Pneumonia.

**Sign language Recognition:** Classify English characters represented by hands.

Emotion Recognition: Classify images

## Volunteering:

AzharCPC (2022 - Present )
 Problem Solving Coach

Microsoft Student Partner (Azhar University) (June 2020-August 2022)
 Head of Al Department

MustCPC (September 2019- Dec 2021)
 Problem Solving Coach

• GDSCMust (2019 - 2020)

**Al Technical Member** 

• IEEE Tanta Yniveristy (2021)
Al Camp Instructor

## Talks & Appearances:

•	<ul><li>TEDx Talk ( Brain vs. Heart</li></ul>	: )	(2022)
•	AMB Conference Zagazig	University	(2022)

• GDSC Delta University (Al in Business) (2022)

• STP Machathon 1 (2019) and 3 (2022)

• Cairo ICT (2020)

• 180 Daraga Camp (2020)

• NilePreneur Pitching Competition (2019)