



AHMAD ABDULHAMEED

Machine Learning Engineer

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PROFILE SUMMARY

Machine learning and software engineer, interested in providing simple solutions to real life problems.

EDUCATION

Cairo University

2011 - 2016

- Bachelor of Mechanical Engineering

WORK EXPERIENCE

Machine Learning & Software Engineer | Freelancing

2022 - PRESENT

- Developing MLOps.
- Creating chatbots.
- Training computer vision models.
- In-House software solutions that speeds up some processes from days to minutes.
- Mobile App development.
- IOT software development.

Piping Engineer | ENPPI

2018 - PRESENT

- **Pipeline Roles:** Pipeline design, including CAD drawings, reports , stress analysis, construction consultancy and other tasks.
- **Stress Analysis Roles:** Running stress analysis calculations and reports, selecting piping supports, drawing special supports and other tasks.
- **Piping Design Roles:** Designing plants 3D modeling using PDMS & SmartPlant, revising vendor drawings, providing construction supervision and other tasks.
- **Software Roles:** Developing in-house software solutions for saving time and increasing accuracy.

PROFESSIONAL SKILL

- Problem Solving
- Communication & Presentation Skills
- Quick Learning
- Passionate Lifelong Learning
- Leadership & Managerial Skills
- Holistic Process Understanding
- Environments Adaptability
- Initiative-taking

LANGUAGES

- Arabic (Mother Language)
- English (Fluent)
- Russian (Basic)
- Urdu/Hindi (Basic)

PROJECTS

Department Evaluation & Bonus Estimator Software

2022

- Providing a fair and clear tool for all department individuals to track their accomplishments and effective working hours.
- This software is very useful for tracking the overall department attitude, ranking the top players in the department, encouraging and motivating the others.
- It was intended to use some machine learning algorithms using evaluation data history to fine tune the parameters and weights needed for different tasks of the department.
- Main used libraries: Pandas, MongoDB, PyQt5

Critical Line List Generator

2022

- Python software for estimating criticality level of each line in the piping plant.
- Reducing the time needed from week or several days just to 30 seconds with neat report generation with different options.
- Main used libraries : Pandas, PyMuPDF, PyQt5.

Waqquad Smart Home

2021

- Smart Home Automation, IOT project for controlling home devices using mobile or web using the following tools:
 - Flutter for mobile app (also for web)
 - Firebase (NoSQL) for backend database
 - C/C++ with PlatformIO for Microcontroller programming (device: ESP8266)

Support Selection Tool

2021

- Developing Support Selection Tool: developed with excel sheets and macros to level up the accuracy and speed up the process by more than 60%

AutoCAD Profile Drawer

2019

- Simple excel sheets with macro that speed up the drawing process with more than 4x, with an increased accuracy.
- Reducing modification time from hours to few minutes.

TECHNICAL SKILLS

- Programming Languages: Python, JavaScript, C/C++, Dart, Java & C#
- Databases: MySQL, MongoDB, PostgreSQL
- Machine Learning Libraries: Scikit-Learn, Tensorflow & PyTorch
- NLP & NLU: Hugging Face, RASA, Botpress, Flowise
- Version Control: Github
- Automation: Github Actions, simple scripts
- Containerization: Docker
- MLOps: MLFlow, Dagshub
- Cloud Services: Amazon AWS, Google GCP
- Python API: Flask, FastAPI
- GUI: PyQt
- Mobile Development: Flutter
- Web Development: React, HTML, CSS, JavaScript
- Data Visualization: Matplotlib, Seaborn, Plotly
- Electronics: IOT & Embedded Systems development, PCB Design

