

# Hossam Eldin Mohamed Mahmoud

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## Machine Learning Engineer

### WORK EXPERIENCE

#### Technocolabs Softwares

Indore, India

Data Analyst Intern (Remote Internship)

August 2022 – September 2022

- Developed and implemented data analysis, data collection systems, and other strategies that optimize statistical efficiency and quality.
- Identified, analyzed, and interpreted trends or patterns in complex data sets, and Deployed models to production.

### EDUCATION

#### Information Technology Institute (ITI)

Alexandria, Egypt

Diploma in AI and machine learning, (AI-PRO) - 9 Month Program. [Courses List](#)

October 2021 – August 2022

#### Faculty of Science, Al-Azhar University

Cairo, Egypt

BS in Computer science and pure mathematics (GPA: 3.2) (V.G with honor). [Courses List](#)

September 2017 - June 2021

### PROJECTS

#### Polarimetric SAR image classification (SkLearn – TensorFlow - Numpy – Pickle – Matplotlib - Streamlit)

Developed a DL images segmentation algorithm to classify zones in the image for example (green zones, water, desert, etc.) using compact adaptive convolutional neural networks, and finally Created a user-friendly API to able others to use this model. (Paper published in 2020), (ITI Graduation Project).

#### Head Pose Estimation (Numpy - Pandas - Open CV – Sklearn)

Detected the position of a human head in the image using the head's Euler angles – yaw, pitch and roll.

#### Optimization Techniques (Numpy)

Applied machine learning gradient descent optimizers like (batch - mini batch - stochastic - RMSprop - Adam).

#### Dashboard (Data Visualization) (Numpy - Pandas - Dash, Plotly)

Described and Analyzed (Airport Customer Review) in 3 Web Pages.

#### Crops Clustering (Numpy – Pandas - SkLearn)

Clustered different types of crops using Unsupervised techniques: Kmeans, DBscan, Agglomerative Clustering, GaussianMixture

### ACHIEVEMENTS

Kaggle Competition - 1st Place in Competition

May - 2022

- Classified the bean type out of 7 bean types using SVC, Multilayer Perceptron and XGBoost models, accuracy (94%) Given a set of features extracted from the shape of the beans in images and it's required to predict the type of each bean.

ACM-ECPC (problem solving competition)

October - 2020

- Participated in a team of three to solve programming problems using DS&A techniques (one problem solved).

### COURSES

- Data Structure and Algorithms (Coursera)
- Applied Machine Learning in Python (Coursera)
- Deep Learning course (Coursera)
- Data Analysis Challenger Track (FWD at Udacity)
- Data Science for Everyone (Data Camp)
- Data Science track (Data Camp) (in progress...)

### SKILLS & TOOLS

**Skills:** Python, C++, Java, OOP, SQL, NOSQL, Linux, Data Analysis and Data Visualization, Web Scrapping, Problem Solving

**Tools:** Pandas, NumPy, Scikit-Learn, Matplotlib, Seaborn, Plotly, Dash, Git, PySpark, Selenium

**Interested In:** Software Engineering, Machine Learning, Data Science, Data Engineering, Artificial Intelligence, Large scale projects, Programming competition.