

AHMED ASHRAF

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EDUCATION

Ain Shams University - iCHEP

Bachelors of Computer Engineering and Software Systems

CGPA: 3.67/4.0

Cairo, Egypt

Sept. 2018 - Jul. 2023

- **Awarded** *Full scholarship* provided to **Top 5** students applied to the university from STEM Egypt.
- **Ranked** among the **Top 15** students class 2023.
- **Courses:**
Artificial Intelligence - Introduction to Machine Learning - Data Mining and Business Intelligence - Big-Data Analytics - Bioinformatics - Ontologies and the Semantic Web - Calculus - Probability and Statistics - Discrete Mathematics - Differential & Partial Differential Equations

STEM Egypt

Secondary school

CGPA: 4.0/4.0

Giza, Egypt

Sept. 2015 - Jul. 2018

- **Projects:**
Robotic Arm for Agriculture - Plant Diseases Detector {Arduino, C++}.

TECHNICAL SKILLS

Languages: Python, C/C++, Java, SQL, HTML, CSS, JavaScript, Typescript

Libraries, Frameworks & Tools: NumPy, Pandas, Matplotlib, Sklearn, Tensorflow, Angular, React Js, Android, AWS, TivaWare, PyGame

RESEARCH EXPERIENCE

- **Graduation Project Research Paper - Dr. Walaa El-Ashmawi** Sept. 2022 - Present
Worked on a research paper comparing machine learning algorithms for customer segmentation to find the most suitable algorithm for CRM application.
- **Bioinformatics Research Paper - Dr. Ashraf Abdelraouf** June. 2023 - Present
Conducted research on computational algorithms employed in metagenomic assembly. The aim of the research is to find the most suitable algorithms for metagenomic assembly.

PROJECTS

Elzoboone CRM | Python, Numpy, Pandas, Matplotlib, Sklearn

Sept. 2022 - Present

- Processed large data set with around 500,000 records, removing outliers, imputing missing values, data inconsistency, and normalizing the data.
- Developed a **customer segmentation** model using K-means on RFM score, resulting in a 0.1% error based on Silhouette score.
- Built a **sales forecasting** model using XGBoost that accurately predicted sales, leading to forecasting with 20% deviation from real values.
- Deployed Machine learning models on Django back-end for real-time training and prediction.

Wagba Food Delivery | Java, Android, Firebase, MaterialUI

Nov. 2022 - Dec. 2022

- Developed a mobile food delivery app that enables users to order food from a variety of local restaurants.
- Integrated **Firebase Authentication** to provide secure access to the application.
- Utilized **Firebase real-time database** to enable users interaction with the application in real-time.

Google Docs Clone | ReactJs, NodeJs, MongoAtlas, Socket.IO, AWS, EC2, S3,

June. 2022 - Jul. 2022

- Developed a fully-functional web application that allows users to create, edit, and share documents.
- Hosted the project on **AWS** and used **MongoAtlas** for database storage
- Utilized **Socket.IO** for real-time communication between users.

Traffic Light Control System | C++, TivaWare

Dec. 2021 - Jan. 2022

- Used interrupts to update the states of the traffic lights and pedestrian signals at regular intervals, which improved the efficiency of the system.

- Implemented a sleep mode to reduce power consumption when the system is idle.

Search Algorithms Visualizer | *Python, PyGame*

Apr. 2021 - May. 2021

- Used **pyGame** to create a dynamic and interactive user interface that allows users to explore the different graph search algorithms.

Cycle Detector in Graph | *C++*

Dec. 2020 - Jan. 2021

- Successfully implemented a cycle detector that can detect cycles in any graph using C++ without external libraries.

CERTIFICATIONS

- **Introduction to Statistics in Spreadsheets - DataCamp**: Acquired practical knowledge and skills in applying *statistical analysis* techniques using spreadsheet tools. Nov. 2022
- **Supervised Machine Learning - Coursera**: Gained understanding of construction and training of *Linear and Logistic regression* models specifically tailored for binary classification tasks. Sept. 2022
- **Advanced Learning Algorithms - Coursera**: Utilized **TensorFlow** to construct and train a neural network capable of performing multi-class classification. Sept. 2022
- **Unsupervised Machine Learning - Coursera**: Developed a deep understanding of various unsupervised learning algorithms, such as *clustering* using **k-means** and *anomaly detection*. Sept. 2022
- **Angular Development Cross Skilling - Udacity** : Qualified to be a Junior **Angular** developer Jul. 2022
- **InnovEgypt program - TIEC**: Gained valuable insights and skills in innovation, business, and entrepreneurship. Nov. 2020
- **Fundamentals of Research Writing - AUC** : Successfully obtained comprehensive knowledge in research writing during 15 contact hours. Jul. 2018

HONORS & AWARDS

- **InnovEgypt Hackathon Finalist - TIEC** Nov. 2022
Successfully pitched my startup idea, *EduGame*, which utilizes AI technology to provide student assistance.
- **EgyptAppCup Hackathon Participant - Huawei** Oct. 2019
Introduced my innovative startup, *PharmaTiec*, which aims to facilitate connections between individuals who possess unused or expired medication and patients.
- **IYMC Finalist - IYMC** Oct. 2018
Achieved the distinction of being an IYMC Finalist, successfully solving four out of five challenging mathematics questions and securing a place in the prestigious final round of the International Youth Mathematics Challenge.
- **Youth Researcher First Generation - Ministry of Education** Jul. 2018
Proudly recognized as a member of the first generation of Youth Researchers initiative by Ministry of Education to promote research in the new generations.

LEADERSHIP / EXTRACURRICULAR

- **Graphic Design Team Leader - iClub** Aug. 2019 - Mar. 2020
Led the graphic design team as the Team Leader at iClub, overseeing and coordinating creative tasks with a focus on innovative design solutions for promoting our goals in spreading innovation and entrepreneurship.
- **Marketing Intern - iHub** Jul. 2019 - Aug. 2019
As a Marketing Intern at iHub, I played a vital role in crafting and promoting the concept of iClub, utilizing my video editing skills to effectively communicate its value proposition and engage target audiences.