Asser Mahmoud

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Education

B.Sc. in Communication and Information Engineering   *(2021 - Current)*
Helwan University, Cairo, Egypt
GPA: 3.1
Relevant Coursework: AI, Machine Learning, Deep Learning , Calculus, Probability & Statistics

Skills

Programming Languages: C/C++, Java, Python, SQL
Libraries & Frameworks: TensorFlow, Pandas, NumPy, Matplotlib, Seaborn
Analysis &Cleaning tools: Power BI, Excel

Projects

Electronic Components Detector | Python, TensorFlow || Uploaded app
- Collected 500 images for 10 Electronic components from our Lab at uni
- Uploaded the dataset to Kaggle and Fine-tuned MobilenetV2 model achieving 97% val-accuracy
- Created a prediction app using python on Huggingface space to be loaded as API taking cam input

Land price prediction | Python, Pandas, NumPy, Sklearn
- Preprocessed & Cleaned numerical data (Decided necessary data, normalization, nulls, encoding)
- Applied polynomial regression algorithm from scratch and monitored model's performance on price prediction reaching reliable 0 approaching loss.

Internet Sales Data Analysis | SQL, Power BI
- Explored Adventure Works database on SQL server based on a real-life business demand
- Extracted needed insights using SQL queries
- Chose the suitable visualizations to Create a 4-page interactive dashboard using Power BI.

Breast Cancer Classification | Python, Pandas, TensorFlow, Sklearn
- Cloned classification dataset to a notebook and preprocessed the data (encoding, scaling)
- Used this data to train an ANN from scratch
- Tested and visualized the model's prediction accuracy which reached a reliable 98% val-accuracy

Extracurricular Activities

IEEE Communication Society
Embedded systems track: *(Feb – Jul 2023)*
- Attended 12 AVR workshops and did 3 Atmega32 Smart home projects

Machine Learning track: *(Feb – Jul 2024)*
- Covered 12 classical ML and DL workshops
- Participated in 3 Deep learning and Computer vision projects

ML Technical support volunteer: *(Sep2024 – Now)*
- Leading ML projects and presenting workshop sessions to fellow students

FEHU CPC Community member   *(Sep - Dec 2022)*
- Participated in 8 DSA sessions (time complexity, sorting, arrays, pointers)
- Solved multiple A, B and C Codeforces problems using C++ language

Competitions
- Competed in Modifier 7.0 (Smart Home Project, ATMEGA32 Microcontroller)   *(July 2023)*
- Placed 3rd in Modifier 8.0 Machine Learning Track (Vehicle Classification CNN model) *(July 2024)*

Courses

Supervised Machine Learning: Regression and Classification - DeepLearning.ai (Coursera)
- Covered: Types of Machine learning, Linear and Logistic Regression, Gradient Descent.

Advanced Learning Algorithms - DeepLearning.ai (Coursera)
- Covered: TensorFlow, Decision trees, Neural networks

Data Analysis & Business Intelligence – Techmind
- Covered: Excel, Power BI, SQL and Python for data analysis and visualization.

CS50P - Introduction to Programming with Python - Harvard University
- Covered: Python basics, functions, exceptions, OOP with python

Professional Experience

Coding Contributor and Reviewer – Outlier   *(OCT 2024 – Current)*
- Improved AI models performance by writing unique and creative prompts.
- Reviewed model responses and written prompts by other contributors.