Yassin Abdulmahdi Data scientist

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Portfolio Github Kaggle

Data Scientist and IT Engineering graduate from Damascus University with hands-on experience in AI, machine learning, and data-driven problem-solving. Skilled at building innovative solutions, I specialize in turning complex challenges into impactful, real-world applications

Professional Experience

Research And Development Engineer, Oct 2024 – present | Malaysia
Rachis Systems Sdn. Bhd

- Designed and implemented a comprehensive federated learning framework, integrating proprietary algorithms and benchmark methodologies for robust comparative analysis.
- Contributed to the development and optimization of an advanced iris recognition system, improving accuracy and reliability.
- Leveraged meta-learning techniques to address vehicle routing problems with time windows, driving significant operational enhancements.
- Collaborated with cross-functional teams to deliver innovative machine learning solutions tailored to practical, real-world challenges.

Data Engineer, Seventh Generation Tech May 2024 – Aug 2024 | UAE

- Automated web scraping workflows using Selenium and Beautiful Soup, streamlining data extraction for IRANK website.
- Processed and validated large datasets, ensuring 100% product information accuracy and real-time updates for users.
- Transformed unstructured data into structured formats, enabling seamless advanced analytics and predictive modeling

website **Google Play** **AppStore**

Junior Data Scientist, Omdena May 2023 – Jan 2024 | United States

- Collaborated with the Omdena Ile-de-France Chapter to develop a Conversational AI Chatbot, improving communication and accessibility during transportation strikes in France through machine learning-driven solutions.
- Participated in the Omdena Toronto Chapter's project on early Alzheimer's detection, analyzing brain scan images using advanced machine learning techniques to aid in early diagnosis and treatment.

Data Science Intern, SHAI For AI Feb 2023 – Apr 2024 | Saudi Arabia

- Completed a remote data science training program at Shai for AI, focusing on machine learning, data analysis, and statistical modeling.
- Gained practical experience in applying core data science principles to real-world problems through hands-on projects.

AI Research Intern, In1Minute Oct 2022 – Nov 2022 | Syria

- Participated in collaborative research initiatives, exchanging knowledge with a multidisciplinary team to gain diverse perspectives and insights.
- Fostered innovation and idea-sharing through active engagement with professionals from varied fields.

Education

Bachelor of Science in Information Technology Engineering, Damascus University Sep 2019 – Sep 2024

- Relevant Coursework: Advanced Machine Learning, Computer Vision, Natural Language Processing (NLP), Data Structures & Algorithms, and Software Engineering Principles.

Skills

Python, Machine learning, Deep Learning, Neural Networks, OpenCV, NLP, TensorFlow, Flutter, Data Structures, Algorithms, Git, Problem solving, Web Scraping, Data Analysis, Predictive Modeling, aws

Awards

ICPC - International Collegiate Programming Contest

- Ranked 19th in the 2022 Damascus University Collegiate Programming Contest.
- Ranked 12th in the 2021 Al-Baath University Collegiate Programming Contest.
- Achieved **146th place** out of 400+ participants in the 2021 ACPC Kick-off Online Individual Contest.

ICPCOD

Personal projects

FluentFlow, AI-Powered Public Speaking Coach [Bachelor's Project]

- Developed a web application to evaluate and enhance public speaking skills, leveraging AI for feedback on body language, voice modulation, and speech content.
- Key Features:
  - Body Movement Analysis: Utilized Mediapipe and PyTorch to assess gestures, posture, and gaze for insights into non-verbal communication.
  - Voice Analysis**:** Applied Librosa to evaluate speech delivery, including speed, vocal variation, pauses, and filler words.
  - Script Evaluation: Used NLTK, SpaCy, and XGBoost to analyze content coherence, linguistic diversity, and structure.
- Built a seamless user experience with a Flutter-based front-end and Django-powered back-end, ensuring smooth data processing and intuitive navigation.

Demo

Jigsaw Genius: Computer Vision-Based Puzzle Solver

Developed an app using advanced computer vision algorithms to solve jigsaw and grid puzzles with high accuracy.

- Puzzle Solving: Automatically analyzes and solves a wide range of puzzle images, delivering accurate solutions in real-time.
- Hint Image Support: Users can upload a hint image to improve solution accuracy, especially for complex puzzles.
- Interactive Interface: Designed a user-friendly interface for easy navigation and enhanced user experience.
- Technology**:** Implemented sophisticated computer vision techniques using Python and OpenCV.

Github **Demo**

Sketchy, Interactive Drawing Education System for Children

Developed an innovative web application to improve children's drawing skills by providing real-time, AI-powered feedback. The system uses machine learning to predict and assist in the drawing process, creating an interactive and engaging learning experience.

- Drawing Prediction: Utilizes advanced machine learning models to predict the child's intended drawing, offering real-time suggestions and guidance.
- Completion Assistance: Provides helpful recommendations to guide children in completing their drawings, enhancing creativity and learning.

Models Utilized: Neural Networks, Deep Learning, KNN, and RNN to accurately predict and guide the drawing process.

Website **Github**

English Grammar Error Correction

The Project is a dedicated effort towards developing an efficient system for automatically detecting and correcting grammatical errors in written English text. Utilizing the powerful T5 model and implementing an Encoder-Decoder architecture.

- T5 Model Integration.
- Encoder-Decoder Architecture.
- User-Friendly Interface.

Github