Sanad Jamal Alali

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EDUCATION

Bachelor in Data Science

University of Jordan • Jordan, Amman • 2025

- A fresh undergraduate student at the University of Jordan

EXPERIENCE

CO-FOUNDER & LEAD UI/DEVELOPER | MuscleMe Fitness App

July 2024 - Present

- Designed and launched an AI-driven fitness tracking platform with over 500 active users.
- Developed machine learning models to deliver tailored meal and workout recommendations.
- Enhanced user experience with intuitive UI/UX, achieving a 95% satisfaction rate.
- Improved application performance by reducing load times by 20%.

PROJECTS

Bird's-Eye Mapper: Road Segmentation from Satellite Images

github.com/SanaD-03-alali/Image-Segmentation-using-Unet

- Developed a U-Net model to segment roads from satellite images, achieving high accuracy in pixel-wise classification.
- Enhanced dataset diversity by integrating original, generated, and augmented images to improve model robustness.
- Applied advanced preprocessing techniques, such as Pix2Pix GAN, to generate augmented data for effective training and evaluation.

Football Analysis in R

github.com/SanaD-03-alali/Premier-League-2023-24-Analysis-in-R/tree/main

- Developed an interactive R and Shiny app for analyzing Premier League 2023/24 data, including player performance and match statistics.
- Created advanced visualizations with ggplot2, leaflet, and treemapify to represent football data in an engaging way.
- Integrated diverse data sources to provide actionable insights through a web-based application.

Vegetable CNN and Transfer Learning

github.com/SanaD-03-alali/Image-Classification-using-CNN

- Implemented a Convolutional Neural Network (CNN) from scratch for image classification using the Vegetable Image Dataset, and leveraged a pretrained ResNet-101 model for enhanced image classification performance.
- Achieved high accuracy: CNN model (Train: 97.09%, Validation: 96.37%, Test: 96.07%).
- ResNet-101 model outperformed with (Train: 98.44%, Validation: 98.69%, Test: 98.32%).

DR.DIAGNOSTIC – Team Project

github.com/Huthayfa-Hodeb/Dr.Diagnostic-Chest-x-ray-Multiclassification-Detection-and-Generating-Report

- Developed a novel combined architecture for tumor detection and report generation, achieving state-of-the-art performance on tumor detection model.
- Achieved an 18.6 mAP in tumor detection using the NIH dataset with the integrated model.
- Trained the report generation component on the MIMIC dataset, ensuring high performance even with a small dataset.
- Advanced medical AI by merging detection and report generation into a unified model.

Machine Learning and Time Series Prediction

github.com/SanaD-03-alali/Machine_Learning_Project

- Successfully developed and implemented classification algorithms including MLP, SVM, and Gradient Boosting Classifier.
- Achieved high testing accuracies of 94.04% with MLP, 92.98% with SVM, and 95% with Gradient Boosting Classifier.
- Utilized LSTM, Bidirectional LSTM (BiLSTM) with loss values 0.0013, 0.0014 respectively, and Echo State Network (ESN) models for time series prediction of gold prices.

SKILLS

- **Programming Languages**: Python, R
- **Data Science & AI**: Machine Learning (Python), Deep Learning, Time series, Feature Engineering, Feature Selection, hyperparameter optimization.
- **Data Visualization**: Power BI, Tableau
- **App Development:** Flutter (Dart), Firebase (AI-integrated applications).

CERTIFICATIONS

Hyperparameter Optimization for Machine Learning
Udemy • 2025

Microsoft Excel - Beginner to Advanced
Udemy • 2025

A deep understanding of deep learning
Udemy • 2024

Machine Learning Specialization
Coursera • 2024

Feature Engineering for Machine Learning
Udemy • 2024

Feature Selection for Machine Learning
Udemy • 2024

Flutter & Dart - The Complete Guide
Udemy • 2024

R Programming
Udemy • 2024

Introduction to Microsoft Power BI
Udemy • 2024

Tableau 2024 A-Z
Udemy • 2024

Data Analyst with Python
DataCamp • 2023

Associate Data Scientist in Python
DataCamp • 2023

INVOLVEMENT

Team Member
University of Jordan • JU Hackathon

- Participated in a 3-day JU Hackathon, collaborating with a team to develop an AI-powered app that reminds students of coursework deadlines and sends automated reminders.
- Secured **1st place** in the App Development category for innovation and functionality.