Muhammad Ali Raza

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EXPERIENCE

Folio3 Software | June 22 – Aug 22 AI/ML Apprentice
- Implemented YOLOv3 algorithm which improved efficiency by 13.7% on the test data.
- Collaborated with a team of developers to create a robust and efficient laundry care symbol detection system within 2 weeks.
- Utilized Django framework for front-end development, ensuring a user-friendly interface.

Mindstorm Studios | July 21 – Aug 21 Game Development Fellow
- Participated in 5 weeks of industry-led workshops to enhance knowledge and skills in game development.
- Collaborated with experienced game developers to design and create game prototypes.

Habib University | Jan 21 – May 21 Teaching Assistant
TA for the course Mechanics and Thermodynamics:
- Conducted 2 tutorial sessions each week, and provided additional practice problems to students during the sessions.
- Dedicated 6 hours each week to assist students with their assignments, offering guidance and support.
- Ensured up-to-date lecture notes, actively updating and maintaining course materials

EDUCATION

Habib University   **Aug 2019 – May 2023**
Bachelors in Electrical Engineering

St. Patricks High School   **Aug 2017 – May 2019**
GCE A Levels (Physics, Chemistry, Mathematics)

RESEARCH PROJECT

Coal Mine Monitoring and Warning System Using IoT   **Advisor: Farhan Khan, Ph.D.**
The project involved roof fall detection using the CV-based algorithm – MobileNet which increased the accuracy to 86% from 53%, and monitoring 5 poisonous gases using 3 gas sensors: MQ-2, MQ-135 and MQ-136. The data from the two modules was then processed, sent to and displayed on Ubidots IoT cloud for visualization.

Skills involved: Microcontroller interfacing, Communications, Internet of Things, Computer Vision, Machine Learning

OTHER PROJECTS – MISCELLANEOUS

Data Scraping: Top 50 IMDb Action Movies
The project involved pulling data of the ranked action movies by IMDb. The data included the duration, rating, metascore and votes.
Tool Used: ParseHub

Exploratory Data Analysis (EDA) Using Python
This data analysis project uses Python and Tableau to perform exploratory data analysis and demonstrate the impact of COVID-19 worldwide.
Tools Used: Jupyter Notebook, Tableau, Python

VOLUNTEER

Wujood Adult Literacy Program (Fall 2022)   **Sep 2022 – Dec 2022**
Campus Instructor – English Level II

National Institute of Child Health   **June 2018 – July 2018**
Student Volunteer, Patient Welfare

SKILLS & CERTIFICATIONS

- **Technical Skills**: R, Django, SQL, Microsoft Power BI, HTML, SQL, C++, Python, Pandas, Numpy, Tableau, MATLAB
- **Certifications & Training:** Introduction to Software Testing by Coursera (Audit), Introduction to SQL by DataCamp, Introduction to DevOps (Audit), Structuring Machine Learning Projects by Coursera, Neural Networks by Coursera (Audit), Analyzing and Visualizing Data with Power BI by edX (Audit), PCI SSF Overview by RiskPro