**MUHAMMAD ALI HASNAIN**

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**Research Focus and Abilities:** Transforming data into actionable insights to drive strategic decisions and innovation.

**EDUCATION:**

**NED UNIVERSITY OF ENGINEERING & TECHNOLOGY Oct’2021-Oct’2025**

Computer Systems Engineering:

**Relevant courses**: Python Programming Language, Calculus, Linear algebra, Differntial Equations, Data Structure & Algorithm, DBMS .

**ADAMJEE GOVT. SCIENCE COLEGE**  **Sep’2019-Sep’2021**

Intermediate-Pre-Engineering

**PROFESSIONAL EXPERIENCE:**

[**OASIS INFOBYTES**](https://github.com/MAliHasnain/OIBSIP) **Aug’2023-Sep’2023**

Data Science Intern:

* Accomplished three tasks, showcasing expertise in data analysis, modeling, and interpretation.
* Employed **KMeans model** for effective Iris flower dataset classification, demonstrating strong clustering skills.
* **Analyzed** Indian unemployment data pre- and post-COVID-19, revealing insightful trends.
* Predicted car prices using machine learning (**linear regression, MSE**), showcasing strong predictive modeling.

**PROJECTS:**

[Potato Disease Classification:](https://github.com/MAliHasnain/Potato-Disease-classification) **Apr’2023**

* Developed an end-to-end project utilizing **CNN** for accurate potato leaf classification.
* Created a prototype web app with FastAPI backend and React.js frontend.
* Leveraged machine learning to identify leaf issues in the agricultural industry.

[Census Dataset Data PreProcessing](https://github.com/MAliHasnain/Census-Data-Preprocessing): **Dec’2023**

* completed a data preprocessing project on a US census dataset obtained from Kaggle.
* Demonstrated proficiency in **data manipulation** and preparation techniques.
* Applied data preprocessing methods to clean, transform, and format the census dataset.

[Online Shoping Cart](https://github.com/MAliHasnain/Online_Shoping_cart): **Jul’2022**

* Led a team of three in the development of a user-friendly online shopping application.
* Implemented **object-oriented programming** principles to create a seamless order placement process.
* Collaboratively designed and built the application, ensuring intuitive experience for customers.

[Quiz Game](https://github.com/MAliHasnain/Quiz-Game): **Feb’2022**

* Designed a user interface for a quiz game using **procedural programming** techniques.
* Implemented subject-specific quiz questions and answers in the game.
* Developed functionality to provide instant feedback and results based on user performance.

**SKILLS:**

**Programming Language**: Python Language.

**Data Analysis**: Data validation, cleaning, preprocessing, visualization, statistical analysis, exploratory data analysis.

**Machine Learning**: Predictive analysis, supervised learning, unsupervised learning.

**Deep Learning**: Model building and training, Artificial Neural Networks, Convolutional Neural Networks.

**Tools and Software**: Python libraries (Pandas, Numpy, Matplotlib, Seaborn, Scikit-learn, SciPy, TensorFlow ), Latex, MS Office, Canva, Git, SQL.

[**CERTIFICATION:**](https://www.linkedin.com/in/mahasnain/details/certifications/)

**DataCamp**: Introduction to Numpy, Joining Data with pandas, Data Manipulation with pandas, Data Cleaning in Python, Introduction to statistics in Python, Data Visualization with Matplotlib, Introduction and Intermediate Data Visualization with Seaborn, Importing Data in Python, Exploratory Data Analysis in Python.

**Edlab**: Active Learning, Classroom Management, Bloom’s Taxonomy.

**AWARD:**

Academic Scholarship: Received a full four-year merit-based academic scholarship from the NED Alumni Association South California (NEDAASC), covering all tuition expenses.

**VOLUNTEERING:**

Mathler’s Society: Created Punch Box exercise book with 1000 sports statistics problems and organized engaging math coaching for 200 underprivileged high school students.