

# Abdul Rafay Imran

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## EDUCATION

● Bachelor of Science in Software Engineering – University of Karachi, Karachi, Pakistan	2023 -Present
● Diploma in Software Engineering – Aptech Learning, Karachi, Pakistan	2022-Present
● Intermediate Adamjee Govt. Science College, Karachi, Pakistan	2020-2022
● Matriculation KBV CAA Model School and College, Karachi, Pakistan	2018-2020

## PROJECT EXPERIENCE

### CROP YIELD PREDICTION IN PAKISTAN (PYTHON) ---- [github: crop.yield](#)

- Analyzes historical agricultural data to study crop yield trends and regional differences in Pakistan.
- Builds and evaluates multiple machine learning models for crop yield prediction.
- Provides visualizations, feature importance, and interactive yield prediction for real-world insights.

### CAR PRICE PREDICTION: (PYTHON) ---- [github: car.price](#)

- Built a preprocessing pipeline with cleaning, feature encoding, and dataset preparation.
- Trained and evaluated a Linear Regression model using MAE and R<sup>2</sup> metrics.
- Produced visual comparisons to interpret and validate model predictions.

### IRIS CLASSIFICATION: (PYTHON) ---- [github: iris](#)

- Developed an Iris flower classification model using Python, loading and exploring the dataset with pandas and seaborn for data visualization.
- Implemented data preprocessing including label encoding, train-test splitting, and feature scaling, followed by training a Random Forest classifier.
- Evaluated model performance with accuracy metrics, confusion matrix visualization, added interactive prediction for new flower measurements.

### Hospital Management System: ( MERN STACK) ---- [github: medicore](#)

- Developed a full-stack healthcare management system with MERN Stack for role-based access.
- Implemented appointment scheduling, billing integration, telehealth consultations, and customizable dashboards.
- Ensured secure JWT authentication, real-time notifications, analytics, and mobile-responsive design.

### EMPLOYMENT AND UNEMPLOYMENT TREND ANALYSIS: (PYTHON) ---- [github: employment.analysis](#)

- Analyzed employment and unemployment trends, including pre- and post-Covid comparisons and seasonal patterns.
- Created clear visualizations to highlight long-term trends, Covid-period impacts, and monthly variability.
- Processed and cleaned multi-source unemployment datasets with date handling, missing-value treatment, and statistical summaries.

## ACHIEVEMENTS

● First Prize, Speed Programming Competition – Aptech Learning, Karachi, Pakistan	2023
● Second Prize, Web Designing Competition – Aptech Learning, Karachi, Pakistan	2023

## SKILLS AND INTERESTS

Technologies: JavaScript – React JS – Angular – PHP – EXPRESS JS - Python - Pandas - Matplotlib - seaborn - Data analysis and visualization

Dashboard and Visualizations: Power BI

Databases: SQL – MongoDB

Additional Skills: MS Office, Canva

## SOFT SKILLS

- Effective communication
- Teamwork and collaboration
- Problem-solving
- Adaptability
- Time management
- Critical thinking

## LANGUAGES

- English
- Urdu