

MARYUM BIBI

LECTURER & AI RESEARCHER

Contact Information

Email: maryumn057@gmail.com
Mobile: (+92) 300 9732879

Address: Military Dairy Farm Jhanda Chichi
Rawalpindi

Profile Summary

MSCS (AI) graduate from PMAS Arid Agriculture University Rawalpindi (**CGPA 3.48**) with **over five years of teaching experience**, including **three years as a permanent Lecturer**. Taught core computing, AI electives, and supportive courses, alongside developing ML and Deep Learning-based algorithms (Computer Vision) for intelligent systems and embedded devices. A dedicated lecturer passionate about academic excellence, continuous learning, and empowering students through quality education and professional growth.

Education

PMAS ARID AGRICULTURE UNIVERSITY RAWALPINDI

2021- 2023

MS in Computer Science (**Artificial Intelligence**)

CGPA: 3.48

Major subjects: Data Mining, Machine Learning, Deep Learning, Computer Vision, Advanced Topics in AI, and Intelligent Systems Design.

Thesis

Title: A deep learning approach for crop yield monitoring.

Publications

An Intelligent Decision Support System for Crop Yield Prediction Using Machine Learning and Deep Learning Algorithms: Bibi, M., Rehman, S. U., Mahmood, K., & Shoukat, R. S. (2023). An Intelligent Decision Support System for Crop Yield Prediction Using Machine Learning and Deep Learning Algorithms. Proceedings of the Pakistan Academy of Sciences: A. Physical and Computational Sciences, 60(3), 37-48.

BSCS in Computer Science**CGPA : 3.36**

Major Courses: C++, Java, Artificial Intelligence, Web development, MySQL Database, Software Engineering, Computer organization and assembly language, Discrete structure, Statistics and probability, Communication skills (Advance English)

Work Experience**Lecturer – Barani Institute of Management Sciences Rawalpindi***Aug 2023 – Present*

As a Lecturer, I design and deliver engaging lectures, mentor students, and promote critical thinking through practical learning approaches. I teach core computer science courses including Data Structures & Algorithms (DSA), Digital Logic Designs (DLD), Artificial Neural Networks & Deep Learning (ANN & DL), Knowledge Representations & Reasoning (KRR), Computer Vision and other AI domain courses.

Visiting Lecturer – UIIT ARID Agriculture University Rawalpindi*Feb 2024 – Present*

In my role as a Visiting Faculty member, I develop and conduct interactive lectures, guide students academically, and cultivate critical and creative thinking through applied learning. I have taught core computer science courses including Information and Communication Technology (ICT), Web Technologies (WTCH), Web Engineering (WE), and Computer Organization and Assembly Language (COAL).

Visiting Lecturer – Foundation University Rawalpindi Campus*Feb 2024 – Present*

As a Visiting Faculty member, I deliver engaging lectures, mentor students academically, and promote analytical and creative thinking through practical learning approaches. I have taught key computer science courses, including Programming Fundamentals (PF), Data Structures & Algorithms (DSA).

Teaching Assistant, UIIT ARID Agriculture University Rawalpindi*Oct 2022 - June 2023*

As a Teacher Assistant, maintained course folders and online attendance records, conducted DLD and Operating Systems labs, prepared quizzes and assignments, evaluated internal marks and semester projects, and performed mid-term and final-term invigilation while completing 24 working hours per week. Encouraged students in DLD, Database Systems, and ITC to think critically, analyze experimental results, and draw meaningful conclusions.

SOFTWARE PROJECTS

Student Performance Prediction System

Tools & Technologies: Python, Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, Jupyter Notebook

- Developed a machine learning model to predict student academic performance using attendance, study hours, previous grades, and internal assessment marks, applying data preprocessing, feature scaling, and training algorithms like Linear Regression and Random Forest.
- Achieved 88% prediction accuracy and visualized insights with Matplotlib and Seaborn to support academic decision-making.

Sales Data Analysis & Business Insights Dashboard

Tools & Technologies: Python, Pandas, Power BI, Excel

- Conducted exploratory data analysis on a retail sales dataset to identify trends, seasonal patterns, and top-performing products. Cleaned and transformed large datasets using Pandas.
- Created interactive dashboards in Power BI and generated actionable insights that improved decision-making and sales forecasting accuracy.

PUBLICATIONS

An Intelligent Decision Support System for Crop Yield Prediction Using Machine Learning and Deep Learning Algorithms

Bibi, M., Rehman, S. U., Mahmood, K., & Shoukat, R. S. (2023). An Intelligent Decision Support System for Crop Yield Prediction Using Machine Learning and Deep Learning Algorithms. Proceedings of the Pakistan Academy of Sciences: A. Physical and Computational Sciences, 60(3), 37-48.

Awards

2022 - Awarded by The Punjab Education Endowment SCHOLARSHIP for 2 years at University Institute of Information Technology (UIIT), Arid Agriculture University, Rawalpindi, Pakistan.

Professional / Academic Skills

Software Development: Python, C/C++, Java (Android), MATLAB, Assembly

Database: Firebase, MySQL

AI Tools & Technologies: Machine Learning, Deep Learning, Ensemble Learning, and related AI techniques

Communication Skills: Presentation skills, teamwork, and collaborative problem-solving

References

Assistant Professor

Name: **Dr. Asif Nawaz**

Institute: uair.edu.pk

Email: asif.nawaz@uair.edu.pk

Masters course teacher and writing a research article as co-author

Assistant Professor

Name: **Dr. Saif Ur Rehman**

Institute: uair.edu.pk

Email: saif@uair.edu.pk

My MS Supervisor