Mubashir Iqbal

Passport: CW1358581 | **Date of birth:** 18/06/1992 | **Nationality:** Pakistani | **Phone number:** (+92) 3185099232 (Mobile) | **Email address:** mubshr07@gmail.com | **Website:** https://github.com/Mubshr07 | **LinkedIn:** https://www.linkedin.com/in/mubshr07/

ABOUT ME

I am Mubashir Iqbal from Pakistan, an AI enthusiast, software engineer, and university lecturer with a strong foundation in machine learning, data science, and software development. My research focuses on Explainable AI and its real-world applications, particularly in healthcare and intelligent systems. My technical skills include Python, C++, Qt for desktop/embedded systems, and web technologies such as PHP, MySQL, and front-end technologies. I currently teach undergraduate courses in Data Science and Machine Learning at HITEC University Taxila, while also mentoring student research projects and contributing to academic coordination. With a passion for research and teaching, and hands-on development experience, I am eager to contribute to challenging roles in academia and industry where I can drive innovation and create meaningful impact.

SKILLS

Data Science ,Data Analytics | Deep learning/Neural networks | Machine learnig | Tabular Data Modeling | Data analysis Data Validation Data Cleansing | Python visualization libraries (Matplotlib & Seaborn) | Prompt Engineering | C C++ C# Programming | Qt/Qt Creator | Python Language - Basic knowledge | Git | WordPress and Wix | FrontEnd: HTML, CSS, JavaScript | Experience with PHP, SQL, HTML, CSS, JavaScript | Microsoft Office

WORK EXPERIENCE

HITEC UNIVERSITY TAXILA, PAKISTAN – TAXILA, RAWALPINDI, PAKISTAN

UNIVERSITY COMPUTER SCIENCE LECTURER – 21/10/2024 – CURRENT

Key Responsibilities

1. **Teaching & Lecturing:** Deliver engaging lectures, tutorials, and lab sessions in computing course materials and assessments.
2. **Curriculum Development:** Update and improve course content aligned with the latest industry trends and academic standards
3. **Student Mentorship:** Guide students academically, advise on course selection, and mentor final-year projects or internships.
4. **Professional Growth:** Stay updated with new teaching methods and emerging technologies; participate in academic networks and events.
5. **Academic Service:** Contribute to committees, program reviews, and departmental activities, including admissions and accreditations.
6. **Exam Administration:** Supervise exams, ensure fairness, and manage exam protocols and discipline.

CENTRES OF EXCELLENCE IN SCIENCE & APPLIED TECHNOLOGIES, PK – RAWALPINDI, PAKISTAN

Business or Sector Public administration and defence; compulsory social security

SOFTWARE DEVELOPER – 01/04/2021 – 31/08/2024

- Develop QWidget Softwares using Qt C++ framework
- Responsible for Software Architecture Design
- Cross-compilation of Software for Windows, Linux, and Embedded Linux operating systems
- System communication protocol design
- Process automation in systems.
- Automatic system integration testing and debugging.
- Coordination with the hardware team.
- Coordination with the Software Quality Insurance team.

- Maintenance of local intranet network and data-sharing.
- Responsible as a System Engineer.

EDUCATION AND TRAINING

15/02/2022 – 10/02/2024 Pakistan

MS (COMPUTER SCIENCE) 2 YEARS COMSATS University Islamabad, PK

During my MS in Computer Science at COMSATS University Islamabad, I conducted thesis research titled *"Enhancing Heart Disease Prediction using Explainable Artificial Intelligence (XAI)"*. This work involved developing interpretable ML models to improve transparency and trust in medical predictions. My coursework included advanced topics such as NLP, Information Retrieval, Data Mining, and Neural Networks. I gained hands-on experience in Python programming, Django, data visualization, and web scraping using BeautifulSoup, while also exploring various machine and deep learning models to analyze and interpret complex datasets.

Website https://cuiwah.edu.pk/ | **Field of study** Software and applications development and analysis | **Final grade** 3.58 |

Level in EQF EQF level 7 | **Thesis** Enhancing Heart Disease Prediction with Explainable AI (XAI)

09/09/2014 – 13/10/2020 Pakistan

BS (COMPUTER SCIENCE) 4 YEARS Virtual University of Pakistan

I completed my BS in Computer Science from Virtual University of Pakistan, where I developed strong skills in C++, PHP, JavaScript, HTML5, CSS3, Bootstrap, MySQL, and version control with GitHub. My final year project, titled **"AudioCloud"**, was a full-stack web application for uploading, managing, and sharing audio files with features like user registration, email verification, admin approval, embedded audio player, playlist management, and keyword-based search. I used **PHP for server-side scripting** and **MySQL for database management**, which enhanced my expertise in web development, database design, and building user-friendly, secure systems.

Website https://vu.edu.pk/ | **Field of study** Software and applications development and analysis | **Final grade** 3.09 |

Level in EQF EQF level 6 | **Thesis** Audio Cloud Platform (Web Application)

LANGUAGE SKILLS

Mother tongue(s): **URDU**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	B2	B2	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PROJECTS

05/02/2020 – 06/11/2020

PAKVENT-1: Advanced Turbine-Based ICU Ventilator with Real-Time Monitoring and Multi-Mode Support

Based on turbine-based airflow, this advanced ventilator (PAKVENT-1) comprises a ventilation unit for gas mixing and control, a patient breathing circuit for gas delivery, and real-time oxygen monitoring. The PAKVENT-1 supports multiple ventilation modes, including Pressure Controlled Mandatory Ventilation (P-CMV), Pressure Synchronized Intermittent Mandatory Ventilation (P-SIMV), and Continuous Positive Airway Pressure (CPAP), among others. Powered by the DE10-Nano processing device and developed using the Qt C++ framework version 5.10, the device's intuitive design and reliable performance make it an invaluable asset in medical field, ensuring optimal patient care and safety.

01/07/2023 – 03/09/2023

Gases Monitoring System & Control

A Qt C++ framework application for desktop is designed to monitor and manage lab room environmental variables such as CO2 levels, temperature, humidity, pressure, TVOC, IAQ, and resistance gas, providing real time visualization through line and bar plots. The DataFetcher C++ class extracts sensor data, checks for threshold breaches, and activates connected USB relays, logging sensor data with timestamps. The Qlogger class logs the software's operational

state and system responses. Supported sensors include BME680, BME688, SGP30, SGP41, ENS160, MiCS5524, MS5803_05BA, TED1X, and USB_RELAY_Switches.

02/07/2023 – CURRENT

Custom SerialPort Monitor

Custom Serial Port Monitor offers a robust solution for serial port communication on Windows, supporting RS232 and RS485 protocols. It provides comprehensive monitoring, logging, and real-time data visualization in hexadecimal and ASCII formats, along with serial device simulation. Features include script-based automated testing, customizable data sequences, and response definitions, making it invaluable for developers and engineers in debugging, testing, and simulating serial communication.

Link https://github.com/Mubshr07/CustomSerialPortMonitorCommunication

Data Acquisition and Logging (DAQ)

This Qt C++ Embedded Linux software, running on the DE10-Nano Development Kit (LXDE OS), is designed to monitor the vibrations of newly built bridges on different loads in the northern areas of Pakistan. It is used to evaluate the strength of bridges. It monitors and logs values in CSV file from various connected sensors, including accelerometers, differential telemetry sensors, and bipolar voltage sensors. The software features a dedicated window for monitoring four channels in a line-plot view, utilizing the third-party library QCustomPlot. This project provided valuable experience in the Qt framework, including the use of enumerations, structures, threading, and user preference settings, highlighting its practical application and learning benefits.

Link https://github.com/Mubshr07/DAQ

2048 Puzzle Game

The Custom 2048 Game is an addictive single-player puzzle created by Gabriele Cirulli in 2014. The objective is to combine numbered tiles on a 4x4 grid to reach 2048. Developed using the Qt Framework with a C++ backend, players slide tiles in four directions, merging tiles and adding new ones with each move. The game requires strategic planning to win and avoid running out of moves.
Original Game: https://2048game.com

Link https://github.com/Mubshr07/2048PuzzleGame

05/09/2021 – CURRENT

WordPress Developer | Islamic Inspirations

Islamic Inspiration is a religious website. The author posts Quranic translations in English and Urdu. My responsibilities are building a good design and educating the owner about making categories, and tags, adding feature-image, image-alt-text, etc.

Islamic Inspirations - A daily dose of Motivation

Link https://islamicinspirations.net/

02/2020 – 08/2020

Audio Cloud Web-Application

Audio Cloud is a comprehensive platform that enables users to upload, manage, and share audio files securely. It includes user registration with email verification, secure login, and role-based authorization for uploading files. The platform features an online audio player, engagement metrics (likes, dislikes, shares), and file deletion. Users can organize audio files into categories and search by title, tags, or categories, ensuring efficient content management and user interaction.

Link https://github.com/Mubshr07/Audio-Cloud-Web-Application

09/2020 – 10/2020

Online Pak Car and Bikes Sale Purchase Web Platform

OPCB (Online Pak Cars & Bikes) is a web-based platform for buying and selling vehicles, using PHP, JavaScript, HTML5, and MySQL. Users can register, log in, and manage vehicle ads with features like search filters, vehicle comparisons, and seller contact information. OPCB aims to automate and streamline the vehicle sales process.

Link https://github.com/Mubshr07/Online_Pak_Cars_and_Bikes_WebApplication

RECOMMENDATIONS

Dr. Fadia Ali Khan Assistant Professor

I have closely worked with Mubashir Iqbal at HITEC University and witnessed his excellence in AI, research, and administration. He is dedicated, detail-oriented, and skilled in teaching, research work, coordination, and technical writing. His contributions make him a valuable asset to any academic or research team. I highly recommend him.

Email fadia.ali@hitecuni.edu.pk | **Phone** (+92) 3345506724

Dr. Hikmat Ullah Khan Professor

I strongly recommend Mr. Mubashir Iqbal for any academic and research department. I am confident that he will be an asset to your community and will make substantial contributions to the advancement of knowledge, development, and automation of processes in your department. I wish him all the best in his future endeavors and recommend him highly. Please feel free to contact me if you need any further information.

Email Hikmat.Ullah@uos.edu.pk | **Phone** (+92) 3005601915

Dr. Muhammad Wasif Nisar Professor

Mr. Mubashir would be an excellent addition to any research team. I hope you will also find Mr. Mubashir's attributes and potential attractive and I hope that you will favorably consider his application for your department team.

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