MOHSIN ZIA

| B-91/1 , Block 13-D, Gulshan-e-Iqbal, Karachi, PK |
| (92) 333-2602714 |u2020244@giki.edu.pk | LinkedIn | GitHub |

SKILLS:

Programming Languages:	C, C++, Python, HTML, CSS, JavaScript, SQL, PHP, React.
Tools:	Git, phpMyAdmin, Jupyter Notebook, Oracle, Creo Parametric, Adobe Photoshop, Linux.
Professional Skills:	Project Management, Problem Solving, Trouble Shooting, and Critical Thinking.

EDUCATION:

BS Computer Science — **2020-Present**
Ghulam Ishaq Khan Institute of Engineering Sciences and Technology; Topi, PK — CGPA: 3.38/4.0

Higher Secondary School Certificate (HSSC). — **2018-2020**
Bahria College Karsaz, Karachi, PK — Grade A+, 80.82%

Secondary School Certificate (SSC). — **2008-2018**
The City School Liaquat Campus, Hyderabad, PK — Grade A, 77.17%

PROJECTS:

- Developed an interactive Event Planner web application, enabling the seamless buying and selling of various wedding-related services. Used **HTML**, **CSS**, **JavaScript**, **AJAX** for front-end development and **PHP** with phpMyAdmin Server database for back-end functionality, resulting in a fully functional and user-friendly platform for both sellers and buyers. *link*
- Achieved Super resolution by implementing multiple machine learning models to enhance image resolution in the **CAVE** dataset. Employed concatenation of 31 bands from each folder in the dataset to obtain images of dimensions 512x512x31. Subsequently, partitioned each image into smaller images of size 64x64x31. Produced **LowResHSI** with dimensions 8x8x31 as feature 1 (x1) for our model, and generated **HighResRGB** of size 64x64x3 as feature 2 (x2). The model successfully generated images approximating the ground truth, measuring 64x64x31 in dimensions. *link*
- Applied Principal Component Analysis (PCA), a dimensionality reduction technique, to effectively reduce the number of bands in a Landsat image while preserving crucial information. Implemented the PCA algorithm using Python libraries such as **scikit-learn**, **NumPy**, and demonstrated the effectiveness of the technique through visual comparison of the original and processed images. *link*
- Created a Snake Game using **HTML**, **CSS**, and **JavaScript**, providing an interactive user experience. Utilized skills in web development to create a fully functional game with responsive controls. *link*
- Designed a replica of the Windows 11 interface using **HTML**, **CSS**, and **JavaScript**. *link*
- Designed a clone of the Spotify web player using **HTML**, **CSS**, and **JavaScript**. *link*
- Developed a Graph Processing application using C++, implementing data structures and algorithms to automate the handling of large-scale graphs. Utilized algorithms to find the shortest path between each node to the other, resulting in the efficient processing of over 500,000 glucose data points. Moreover, implemented a visual representation of the graph using the C++ library **SDL**. *link*
- Developed a Library Management System using linked list data structures in C++, enabling users to manage and maintain student and book records, including adding and removing records, issuing and returning books, and updating the inventory. *link*
- Created a Hangman game using Object-Oriented Programming (OOP) in C++, featuring a user-interactive guessing system where players had to guess the name of countries within limited turns. *link*

EXPERIENCE:

- **Executive Member at Association of Computing Machinery (ACM),** GIKI — Aug 2021 – Present
- **Internship at Interns.pk** — July 2022 - Aug 2022
  Completed a remote internship of five weeks with a major of web development.
- **TCF Baghbaan Ambassador Program (BAP)** — Jan 2022 - July 2022
  Volunteer at TCF-BAP.

ACHIEVEMENTS AND AWARDS:

- Recipient of Dean's Honor award in **4th**, **5th**, and **6th** semester at Ghulam Ishaq Khan Institute.
- Machine Learning Specialization, DeepLearning.AI, Stanford, Coursera.