

## SUMMARY

Experienced computer engineer specializing in machine and deep learning. Proficient in Python, TensorFlow, PyTorch, and data analysis. Skilled in developing and deploying AI solutions, optimizing performance, and driving innovation to deliver impactful results in diverse applications.

## TECHNICAL SKILLS

### LANGUAGES

- Python, C, C++, Verilog, SQL, Matlab, Microcontrollers

### TECHNOLOGIES

- Pytorch, TensorFlow, OpenCV, Arduino, Data Visualization, Packet tracer

### INTERESTS

- AI & ML, Embedded Systems, UI/UX, Visual Design, Robotics, Networking

## EDUCATION

### Bs Computer Engineering

CGPA 3.08 / 4

2019-2023

Comsats University Islamabad

- Digital System Design, Microprocessors and System Interfacing, Embedded Systems, Computer Architecture, Neural Networks, Data Communication & Computer Networks

### Intermediate in CS

Marks => 82%

2017-2019

Punjab College Gujrat

- ICS

## FINAL Year Project

### Nested U-Net Architecture For Medical Image Segmentation

This project showcases the implementation of U-Net and Nested U-Net models in PyTorch and TensorFlow for training and testing medical images. It utilizes a range of loss functions and their combinations to improve the model's performance. The evaluation of results is conducted using metrics such as IoU and Dice coefficient, focusing on accurate assessment of the models' effectiveness in medical image analysis. The project also incorporates essential libraries like OpenCV, NumPy, and Albumentations to support image processing and augmentation tasks.

## Semester Projects

- IOT based Current and power monitoring using ESP32 Microcontroller
- ATM Connected to Bank using C++
- Snake and Ladder Game with GUI using C
- Water Level Indicator, using Arduino UNO Microprocessor
- Line Following Robot in Robian Competition
- Tic Tac Toe using Python
- Database Design for Dream Home Case using MySQL
- Network Design on Packet Tracer
- FPGA Accelerator for Convolutional Neural Network.

## Work Experience

### Pollio

Jan 2022 - Mar 2022

Email Scraping and Database Management:

Managed end-to-end email scraping projects, extracted targeted leads, and successfully manage database.

### Product Design (UI/UX)

Freelancing

UI Designs for Websites and Mobile apps for better user experience to engage more audience.

## Certifications

- Use WordPress to Create a Blog for your Business. (Coursera)
- Foundations of User Experience (UX) Design (Google)
- Data Visualization (Tableau)
- Data Science with Python

## Reference

Dr. Qudrat Khan Assistant Professor at Comsats University Islamabad

[qudratullah@comsats.edu.pk](mailto:qudratullah@comsats.edu.pk)