

ZIA UR REHMAN

Computer Engineer | Computer Vision | Embedded Systems | Machine Learning | Deep Learning

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SKILLS

Computer Languages

- Python, C, C++, Embedded C, Matlab, R, Verilog (HDL), Streamlit, LangChain

Development Environment

- VS Code, PyCharm, Anaconda, GitHub, Google Colab, Kaggle, Raspberry pi, Ubuntu, Matlab, Proteus, Arduino IDE, MikroC for PIC Microcontrollers, MPLAB, PICKit-3, Xilinx, Vivado, FPGA (Artix-7), Atmel Studio, Microsoft Visio, Streamlit

Operating Systems

- Windows, Linux (Ubuntu), Raspbian OS

RESEARCH INTEREST

- Computer Vision
- AI (Machine Learning/Deep Learning)
- Embedded Systems
- Robotics

EDUCATION

- Bachelors in Computer Engineering 2014 – 2018

University of Engineering and Technology (UET), Taxila, Pakistan.
Institute: KICSIT, Rawalpindi
CGPA: 3.77 / 4.0

CERTIFICATIONS

- Python for Machine Learning ([link](#))
- Face Detection with OpenCV in Python ([link](#))
- Git Crash Course ([link](#))
- Image Processing Onramp ([link](#))

ACHIEVEMENTS

- Gold Medal in BS Computer Engineering
- First division throughout academic carrier.

EXPERIENCE

KICSIT, IST | Lab Engineer | Islamabad, Pakistan
16th July, 2019 to Present

AI Computer Vision Projects (highlighted text are the hyperlinks)

- [American Sign Language](#) Recognition (OpenCV, TensorFlow Keras)
- [Face Detection](#) Using Mediapipe Accuracy up to 99%
- [Object Detection](#) Software (OpenCV, YOLOV5)
- [Control Servo Motor Using Hand Gestures](#) (Robo Vision, OpenCV, Arduino)
- [AI Gym Trainer](#) | Curl Counter (OpenCV)
- [Hand Distance Measurement](#) Using Computer Vision
- [3D Brain Model Control](#) By Hand Gestures
- [Vehicle Counting](#) from Traffic Monitoring Camera
- [Contours Detection](#) | Object Detection
- [Text Detection](#) and recognition
- [Car Parking Management](#) Using OpenCV from Parking Camera
- [Finding the width and height](#) of an object using aruco library
- [QR Code Scanner](#) Using OpenCV
- [Breast Cancer Predictor Web Application Using Streamlit based upon Machine Learning Algorithm \(\[link\]\(#\)\)](#)

Conduct the Labs in university, which include the following Subjects

- Digital Image Processing, Microcontroller Application & Design, System Programming, Computer Vision, Machine Learning, Digital System Design, Circuit Analysis, Digital Logic Design, Microprocessor

[MPI](#) (Message Passing Interface) Using Python for Parallel Programming
Implementation of Machine Learning Algorithms ([link](#))
Implementation of OS Scheduling Algorithms ([link](#))

Comparative Analysis of Seven Programming Languages (C, C++, C#, Java, Python, Matlab, R) ([link](#))

VISION INSIGHTA | Chief Operating Officer | Rawalpindi, Pakistan
17th Jan, 2023 to Present

Industrial Projects (Computer Vision)

- Development of IDU (Interactive Display Unit) for Stalls to automatically detect human being and starts the demo. User can also control the demo using hand gestures. (Raspberry Pi, OpenCV)
- Development of IPC (Interactive Presentation Control) to control the Power Point Presentation using hand gestures for conference hall. (OpenCV)
- Development of Virtual Whiteboard for conference hall to draw or write using hand gestures. (OpenCV)
- Gestures Control Robotic Car.

BARQI LABS | Embedded Design Engineer | Rawalpindi, Pakistan
25th Aug, 2018 to 12th Dec, 2018

Industrial Projects (Embedded Systems)

- [Project with Fauji Fertilizer Company](#) Sadiqabad: Design and Automate Score Board, Badminton court using PIC microcontroller, IR transmitter and receiver and seven Segments

KSOFT | Internee | Islamabad, Pakistan
13th July, 2016 to 24th Aug, 2016

Projects (Embedded Systems)

- [Hardware Interfacing of Pathology Lab Machine](#)

Final Year Project (Under Graduate)

[Electroencephalograph Based Wheel Chair \(Mind Control Wheelchair\).](#)