Muhammad Khizar

Software and Robotics Engineer

About

- Lahore Punjab PK
- khizar.sent@gmail.com
- khizary
- khizary

Programming

Intermediate
C C++ C# Python

Embedded Systems & Microcontrollers

Intermediate
Arduino Uno/Mega
ESP32 ESP8266
Espressif-IDF
MicroPython PyFirmata

Design & CAD

Beginner
Autodesk Fusion 360
Blender

Full-Stack Development

Intermediate
Django Laravel SQLite
PostgreSQL
API Engineering
Interactive Web Design
Hosting & Deployment
Containerization
Automation Scripts

Data & Computer Vision

Beginner
OpenCV Pandas
Numpy

Summary

Computer Science undergraduate at LUMS with hands-on experience across robotics, microcontrollers, and full-stack development. Proven track record of leading technical teams, building production-ready projects, and bridging hardware with software to deliver impactful solutions.

Experience

01/2024 - Present

Events with Administration Team

Executed large-scale cultural and social events at LUMS, optimizing logistics and engagement to deliver high-impact experiences.

08/2024 - 01/2025

TechWars Category Management Team

Coordinated and streamlined coding challenges for PSIFI '25, ensuring smooth execution for one of Pakistan's premier science festivals.

11/2024 - 02/2025

Corporate Relations Coordinator

- Secured corporate sponsorships through effective outreach and negotiation
- Coordinated hospitality for founders, mentors, and investors
- Collaborated with marketing to maximize brand visibility

07/2023 - 07/2024

President

- Founded and scaled the first robotics society at Beaconhouse
- Led workshops introducing robotics to AS/A Level students
- Directed the development of an omnidirectional RC drone as a flagship society project

11/2023 - 11/2023

Hospitality Team

Managed logistics and hospitality for international delegations.

06/2023 - 06/2023

Hospitality Team

Coordinated participant support and logistics for a national educational event.

02/2022 - 02/2022

Director Registrations and Tabulations

- Digitally managed registrations for 40+ teams
- Directed match tabulations to ensure accuracy and fairness

09/2021 - 02/2022

Web Developer

Developed and customized a business website using Wix Velo, improving client visibility through SEO optimization.

Open Source Projects

Redford · https://github.com/Khizary/Redford
A pocket-sized penetration testing device leveraging the ESP32, built for security research and rapid field testing.
ESP-IDF C++ Hardware Soldering

ImageMaché · https://github.com/Khizary/ImageMache
Python-based photomosaic generator capable of combining hundreds of images into a single large composite artwork.

Python OpenCV

CO2 Logging Alert System · https://github.com/Khizary/CO2-Logging-Alert-System
Environmental monitoring system with live CO2, temperature, and humidity data display on OLED, designed for indoor air quality tracking.
Arduino IDE   MHZ-19B Sensor   SHT30

Mecanum Omnidirectional Rover · https://github.com/Khizary/Mecanum-Camera-Rover
Remote-controlled rover using mecanum wheels for full 360° mobility, designed as a proof-of-concept for omnidirectional robotics.
Arduino IDE   Electronic Systems   Robotics

Conway's Game of Life · https://github.com/Khizary/Conways-Game-of-Life
C++ implementation with SFML, featuring unique extensions like custom rulesets, music integration, and novel gameplay mechanics.
C++   SFML   Game Development

Lumify · https://github.com/Khizary/Lumify
Discord-integrated script that syncs RGB lighting with album art colors of currently playing songs, merging music with IoT.
Python   OpenCV   Spotify API   TinyTuya

Education

Lahore University of Management Sciences
08/2024 - 05/2028
Bachelors Computer Science

- Calculus I: Focusing on theoretical analysis of simple differential equations.
- Principles of Chemistry: Rediscovering an Atom.
- Linear Algebra with Differential Equations: Uncovering real world applications.
- Mechanics: An in-depth analysis of Newtonian Laws.
- Measurements and Design Lab: Computer Aided Design, MATLAB, laboratory work.
- Introductory Biology: An overview of DNA analysis, cellular genesis and genetic modifications.
- Computational Problem Solving: Introduction to utility based C++ programming.
- Introduction to Programming: C (.NET) memory management and object oriented programming in C++ with a brief overview of data structures.
- Biology and Chemistry Lab: Nano-particle formulation, drug synthesis, chemical extraction, genetically modifying bacterial colonies, DNA sequencing.

Beaconhouse
08/2019 - 05/2024
GCSE/IGCSE Engineering Sciences

- Pure Sciences [Cambridge Ordinary Levels]
- Computer Science, Mathematics, Physics, Global Perspectives &
- Research [Cambridge Advanced Levels]