MUJTABA AHMED

Rawalpindi, Pakistan

03175159949 **mujtabakhan1036k@gmail.com**

Nationality ..... ***Pakistani***

LINKS

linkedin, GitHub

PROFILE

A final-year Engineering student with a strong foundation in Ai Automation, Data Structures and Algorithms (DSA) using Python, along with a good understanding of C++, Java, and JavaScript. Hands-on experience in Python development, circuit design, and simulation using tools like Proteus, HFSS, and MATLAB. Passionate about embedded systems, signal processing, and automation, leveraging programming expertise to solve engineering challenges. Actively seeking an internship opportunity to apply technical knowledge in a practical environment and contribute to innovative projects.

EXPERIENCE

Summer Internship, Rohde&Schrewz ..... Jun 2025 — Aug 2025
Islamabad

- Tested software solutions to enhance mobile communication systems at Rohde & Schrewz.
- Collaborated with engineering teams on system integration and performance optimization.
- Conducted troubleshooting and debugging of communication software to ensure reliability.
- Participated in project meetings, contributing to design discussions and technical documentation.
- Gained hands-on experience with industry-standard tools and methodologies.

EDUCATION

National University of Sciences and Technology (NUST) ..... Oct 2022 — Present
BS Electrical Engineering and IT Rawalpindi

- CGPA: 3.51

Askari Cadet College ..... Apr 2019 — Aug 2021
pre-Engineering Kallar Kahar

- 1053/1100

SKILLS

Data Structures and Algorithms .....
Proteus .....
MATLAB .....
Python .....
Verilog .....
C++ .....
Web Development .....
javascript .....
AI Automation .....
Agentic AI .....
Arduino .....
HFSS .....

LANGUAGES

English

CERTIFICATIONS

Introduction to the Embedded System — Feb 2025 — Feb 2025

Hands-on Experience on ARTYZ7 ZYNQ7000 SoC

- Interfacing ArtyZ7 FPGA with Vivado Design Suite
- Basic RTL Design on ARTYZ7
- Random Access Memory (RAM) on FPGA

FINAL YEAR PROJECT

Unauthorized Transmitter Localization Using SDRs Mounted on Drones

This project develops a practical system for detecting and localizing unauthorized radio transmitters using the Time Difference of Arrival (TDOA) technique and Software Defined Radios (SDRs). The goal is to build a robust, reproducible pipeline that captures wireless signals across a distributed set of SDR receivers, extracts precise timing differences, and computes the transmitter's position via multilateration. The implementation emphasizes open-source tools and reproducible builds (GNU Make) while incorporating signal processing algorithms, synchronization strategies, and visualization to produce an end-to-end demonstration suitable for real-world and academic evaluation.

PROJECTS

Friends Recommendation System

- Developed a Friends Recommendation System in Python by leveraging concepts from Graphs and Arrays, and integrated a user-friendly UI to enhance the overall experience.

Blind Stick

Designed and implemented a Blind Stick using Arduino, enhancing practical knowledge of embedded programming, sensors, and software-hardware integration

Self Balancing Robot

Designed and developed a Self-Balancing Robot by applying Linear Control System principles, bridging theoretical concepts with real-world application.

Ball and Beam Balancing

As an extension of my earlier Self-Balancing Robot projects, this version was developed alongside the original to experiment with different implementations of Linear Control System theories in robotics

AI medical Assistant

- An AI project in which i use the power of AI tools to make a professional medical assistant and also deployed it on the server so that users can access and use it

Coding Problem Solving

- more than 500+ problems solved on Leetcode ,GFG and InterviewBit to enchance my coding and problem solving skills

Spotify Automation chatbot

- A personal chat-bot for spotify playlist automation so that i don't have to search and add song in my playlist i just have to give name to my chat-bot and my playlist will be updated

Social Media Content Generation Automation

integrated AI automation tools with my coding expertise to build solutions that automate and optimize content generation for different social media platforms