

Syed Zulqarnain Haider

Electrical Engineer

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 71103-8792304-5  Pakistani  April 13th, 2003

PROFILE

Driven by a passion for automating systems and solving real-world problems, I pursued an **Electrical Engineering** degree, building a fairly strong foundation through **technical projects** and **research papers**. However, my true passion lies in bridging the gap between **technical implementation** and the **abstract needs** of businesses and society. I am passionate about using **creativity** and **systems thinking** to develop solutions that drive meaningful impact. With a commitment to **continuous learning**, I focus on **empowering teams** and fostering collaboration and research to create innovative, **entrepreneurial solutions** for positive social impact and sustainable development.

EDUCATION

2017 – 2018	Matriculation
Skardu, GB	<i>Federal Board of Intermediate and Secondary Education</i> Scored 94.9%
2019 – 2020	FSC Pre-Engineering
Skardu, GB	<i>Federal Board of Intermediate and Secondary Education</i> Scored 87.9%
12/2021 – 12/2025 Lahore	BS Electrical Engineering - Telecom <i>Institute of Electrical Electronics and Computer Engineering</i> University of the Punjab CGPA - 3.36/4 FYDP/Thesis - Brainwave Signal Analysis Using AI to Evaluate Cognitive and Emotional Responses in Children Aged 2-7 to Visual and Auditory Stimuli

TECHNICAL SKILLS

Web Dev Basically MERN	Circuit Design Tools Proteus, Multisim	3D Design AutoCAD
Matlab & Simulink Fundamentals of Engineering Tools	Programming Python, C++, Assembly	Embedded Systems Design & Development

RELEVANT COURSEWORK

Entrepreneurship | Engineering Management | Technical Writing |
Electronic Devices & Circuits | Electrical Network Analysis |
Wireless and Mobile Communications | Applied Physics |
Data Structures and Algorithms | Programming Fundamentals |
Advanced Programming (OOP) | Transmission and Switching Systems |
Digital Signal Processing | Digital Communications |
Computer Communication Networks | Digital Logic Design | Signals and Systems |
Transducers & Instrumentation | Embedded Systems | Linear Control Systems

PROJECTS

Simplified Network Design for a Small Corporate Office

Computer Networks

Designed the network topology and IP schemes, and implemented servers for web, email and dns, configured cisco routers and switches in Cisco Packet Tracer.

NeuroSense: The Brain IMDb - Web App

Deep Learning and Neuroscience Based Project

Designed and executed comprehensive study methodology, encompassing data lifecycle management (collection, processing), model training, and the final development and deployment of a demonstration web application.

School Management System

Web Development Project - Proprietary

Designed, developed and deployed a school management system for a multi-campus school.

Air Quality Index Management Subsystem

Industrial IOT Project

Designed an automated ventilation management system but then developed a subsystem of it i.e., AQI sensor system using humidity and smoke sensors.

RF Wireless Data Transmission Model

Digital Communications Project

Designed and built a working miniature model using Arduino and 433-Mhz modules.

Modeling And Control Of Mechatronic Aero Pendulum

Control Systems Project

Developed a feedback control system for synchronizing the two propelling systems. Physically implemented with customized handcrafted hardware.

A Diagnostic Model Of Computer Systems In The Form Of Finite State Machine

Digital Logic Design

Utilized the Finite State Machine tool to develop a model of computer systems' states.

Online Attendance System

Data Structures and Algorithms Project

Designed a functional online web app for students, instructor and coordinator for managing student attendances.

Wireless Voltage Detector

PCB Design Project

Brainstormed the idea in a group of three, designed on software, and planned the fabrication and put things together in our first harware based project.

PUBLICATIONS

Design & Analog Implementation of Synchronizaiton Controllers for Feedback Instruments' Servo Trainer Module

IEEE

Designed the study procedure and carried out the study. Developed the necessary hardware i.e., state feedback controller using op-amps, and applied it to working physical project - The Aeropendulum

DOI: 10.1109/ICIT63607.2024.10860018

PROFESSIONAL EXPERIENCE

06/2024 - **Network Testing Intern**

08/2024 *LCC Pakistan*

Lahore

As an intern I learned to be a part of a team which was in itself a part of a cluster of teams with different roles. I got experience in drive testing equipment and tools, talking to team members and clients, and managing the test routes and having fun even during longer workdays and projects.

ACADEMIC ACHIEVEMENTS

Competed In

ICECE, 2024 Idea Presentation Competition

We presented the idea and model of a smart, sustainable kitchen and miniature garden ecosystem.

Positions In

SEECON '23 & '24 Matlab & Circuit Design Competitions, & Simulink Design

Winner in SEECON '23 Matlab Programming Competition, Runner Up in Circuit Design and Simulink Design Competitions in SEECON '23 and '24.

Attended

International Conference on IT and Industrial Technologies [ICIT] - 2024

Managed Sports Event

Planned and organized multiple parts of annual sport, including Esports and team sports like Football, event during senior year of BS program

LANGUAGES

Balti

● ● ● ● ● Urdu

● ● ● ● ●

English

● ● ● ● ● Chinese

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PERSONALITY TRAITS

- Diversely innovative and **systems-oriented** by nature, can be slow but diverse
- **Planning-focused** professional skilled in conceptualization, structuring ideas, and process mapping
- **Fast learner** with the ability to analyze complex concepts and develop long-term understanding
- I instinctively **connect the dots** between technical logic, empathetic design, and practicality to envision holistic solutions.
- Collaborative team contributor who stays focused on target when in teams but might go into recursively branched ideation when thinking alone
- Optimistic and growth-oriented mindset with a focus on continuous improvement and impact

INTERESTS

Pinterest & Instagram – For ideas & inspiration | **Gaming** – Playing FreeFire only to max ranks & level | **Piano** – Attempts on mobile phone | **Philosophy** – Ideas of different people & groups | **Self Dev Books** – Top Picks: Laws of Success & 12 Rules for Life | **Anime** – Watch character development, twists and politics | **Ideation** – Think of real and unreal ideas | **Workout & Martial Arts** – . . . | **Music** – Listen to music & songs, & sometimes try to write (ft. chatbot) | **Research Market Trends** – Looking at reports & websites of different companies