

# HAFIZA TAYYABA ZAFAR

## Electrical Engineer

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Address: Ayesha Hall, University of Engineering and Technology, Lahore, Pakistan



### ACADEMICS:

Degree	Specialization	Marks	Year
<b>M.SC. ELECTRICAL ENGINEERING (UNIVERSITY OF ENGINEERING AND TECHNOLOGY, LAHORE (MAIN CAMPUS))</b>	Electronics and Communication	3.54 (CGPA)	<b>2021-CONT.</b>
<b>B.SC. ELECTRICAL ENGINEERING (UNIVERSITY OF ENGINEERING AND TECHNOLOGY, LAHORE (FAISALABAD CAMPUS))</b>	Electronics and Communication	3.526 (CGPA)	<b>2017 – 2021</b>
<b>F.SC. (GOVT. COLLEGE (FOR WOMEN), TOBA TEK SINGH)</b>	Pre-Engineering	86.7%	<b>2015 - 2017</b>
<b>MATRICULATION (THE AIMS GRAMMAR HIGH SCHOOL, KAMALIA)</b>	Science	86.2%	<b>2013 - 2015</b>

### EXPERIENCE:

- **AL-KHAWARIZMI INSTITUTE OF COMPUTER SCIENCE, LAHORE**  
RESEARCH OFFICER  
June 2024 - Cont.  
I focused on an artificial intelligence project centered around data collection, analysis, and automation for content analysis.
- **CQ TECHNOLOGIES**  
VIRTUAL TEACHER  
Oct 2022 - June 2024  
I taught Math and JavaScript to the children.
- **AL-KHAWARIZMI INSTITUTE OF COMPUTER SCIENCE, LAHORE**  
RESEARCH INTERN  
Oct 2023 - May 2024  
I focused on an artificial intelligence project centered around data collection, analysis, and automation for propaganda detection and content analysis. Responsibilities included extensive data labeling using Python, web scraping with Selenium and Doccano, and feature extraction. I conducted in-depth data analysis and contributed to the development of an automated system for mapping textual content to a propaganda framework. Skills developed include Python programming, web scraping, annotation, machine learning, critical thinking, and communication.
- **PROJEXON ENGINEERING SOLUTIONS, LAHORE**  
TRAINEE ELECTRICAL ENGINEER  
Aug 2023 - Sep 2023  
I was responsible for selling technical products or services in the fields of science, technology, or engineering. I arranged client meetings, presented technical data and analysis to customers, and provided after-sales troubleshooting for products.

### PROJECTS:

- **EYE CARE MOBILE APP**  
A mobile app that implements a deep learning model that diagnoses diabetic retinopathy, a diabetic complication that affects the eye, through retinal images without the need for clinical expert
- **SKIN DISEASE DETECTION USING DEEP LEARNING**  
In this project, we have used a deep learning model using Convolutional Neural Networks (CNN) to classify six different types of skin diseases.
- **FUZZY LOGIC-BASED MPPT CONTROLLER**  
An implementation of a fuzzy logic-based MPPT controller in MATLAB, that tracks the maximum power point of solar PV panels to ensure maximum power delivery.
- **37-BUS APL SYSTEM**  
A simulation and analysis of 37 bus power systems in Power World Simulator.

➤ **SINGLE PHASE 21 MULTI-LEVEL INVERTER**

A new topology of 21-level inverter that uses a reduced number of switches hence reducing the size and cost of a circuit. implemented in MATLAB

➤ **SURVEILLANCE SYSTEM USING RASPBERRY PI**

A surveillance system that monitors the area and detects motion through a camera feed and sends mail alerts with video when motion is detected.

## ACHIEVEMENTS:

- Got merit-based laptop in the Prime Minister Laptop Scheme
- Honored with Hafiz-E-Quran
- Girls Representative in Bachelors

## COMPUTER SKILLS:

- |                           |                          |                         |
|---------------------------|--------------------------|-------------------------|
| ✓ MATLAB                  | ✓ Lab VIEW               | ✓ C, JavaScript, Python |
| ✓ Controller Arduino      | ✓ Wireshark              | ✓ Verilog               |
| ✓ Controller Raspberry Pi | ✓ Web Development        | ✓ Machine Learning      |
| ✓ Microsoft Office Word   | ✓ Microsoft Office Excel | ✓ HTML, CSS             |
| ✓ Power World Simulator   | ✓ AutoCAD Simple Drawing | ✓ Web Scraping          |
| ✓ Proteus                 | ✓ Bootstrap              |                         |

## INTERPERSONAL SKILLS

- |                        |                  |                          |
|------------------------|------------------|--------------------------|
| ✓ Analytical Skills    | ✓ Handworker     | ✓ Time Management Skills |
| ✓ Leadership Qualities | ✓ Respectfulness | ✓ Persuading Mind        |
| ✓ Quick Learner        | ✓ Positivity     |                          |

## INTERESTS AND ACTIVITIES

Programming | Reading | Travelling and Exploring new things | Hobby Projects | Gardening | Badminton | Gaming