

Hafsa Tanveer

Electrical Engineering Student

✉ tanveerhafsa61@gmail.com

📍 Mianwali, Pakistan

☎ 03154295835

Electrical Engineering student with strong hands-on experience in embedded systems, microcontroller programming, and circuit design. Skilled in MATLAB/Simulink and Proteus for modeling and simulation. Currently working on Final Year Project titled "Heart Sound Classification using Digital Stethoscope", focusing on a machine learning-based diagnostic system with hardware integration. Interested in embedded AI and innovative engineering solutions.

Education

BS Electrical Engineering

Namal University Mianwali

Experience & Activities

SUMO War Robot Development

Namal Tech Expo

- Designed and developed a competitive SUMO robot

IEEE Society

Decoration Wing

- Organized technical and social events

Character Building Society

Social Worker

- Participated in community service activities

Internships

Hydel Power Plant Chashma

- Gained practical exposure to power generation systems and plant operations
- Observed turbine control, maintenance, and electrical distribution systems

NRTC Haripur

- Worked on industrial communication and electronic systems
- Learned about embedded and defense-related electronic technologies

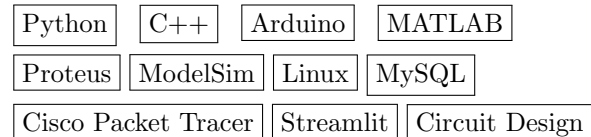
Technical Experience

- Model deployment on Raspberry Pi 4
- Model deployment on RISC-V VisionFive 2
- Worked on STM32-based embedded systems
- Developed projects using ESP32 microcontroller
- DocLight system development and hardware integration
- Dashboard development using Streamlit
- Collected heart sound data using digital stethoscope
- Hardware integration with Raspberry Pi 4

Courses

- Database Engineering
- Internet of Things
- Machine Learning
- Renewable Energy Resources
- Embedded Systems
- Digital Signal Processing

Skills



Projects

Heart Sound Classification (FYP)

- Developed ML model for heart sound classification
- Integrated system with digital stethoscope

Blood Group Detection using Machine Learning

- Developed ML-based system to predict blood groups
- Applied data preprocessing and classification techniques

Password Management System

- Developed secure system with encryption techniques

5-Stage Pipelined RISC-V Processor

- Designed and simulated pipelined processor architecture

Tools & Technologies

- MATLAB/Simulink
- Proteus
- Atmel Studio
- ModelSim
- Ubuntu
- Cisco Packet Tracer
- MySQL
- STM32
- ESP32

Interests

