



Sobia Batool

Electrical Engineering

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📍 Mianwali, Pakistan

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Electrical Engineering student at Namal University with expertise in computer architecture, embedded systems, Machine Learning and Power Systems. Proficient in Verilog, MATLAB, Python, and C++. Experienced in RTL design, IC physical design flows, pipelined RISC-V processor implementation, and ML-based data analysis. Seeking an internship or entry-level role to apply and grow technical and professional skills in a real-world engineering environment.

EDUCATION

○ Bachelor Of Electrical Engineering

Namal University Mianwali

Oct 2022 - Present | Mianwali, Pakistan

Courses

- Computer Architecture
- Digital Logic Design
- Wireless Communication
- Embedded Systems
- Machine Learning
- Power Electronics
- IOT Systems
- Digital Signal Processing

WORK EXPERIENCE

○ Electrical Intern

Fauji Fertilizer Company(FFC), Goth Machhi

Jul 2025 - Sep 2025 | Sadiqabad, Pakistan

Accomplishments / Tasks

- Gained experience in industrial electrical systems and maintenance.

○ Embedded Systems Intern

NRTC, Haripur

Jul 2024 - Aug 2024 | Haripur, Pakistan

Accomplishments / Tasks

- Integrated GPS module and DF Robot sensor for real time data.
- Programmed 3D digital compass for orientation data(pitch, roll, yaw).

○ Remote Trainee

Roshan Kal Academy

Pakistan

Accomplishments / Tasks

- Completed 10 telecom training modules in technology, marketing, and professional development.

ORGANIZATIONS

Namal Society for Social Impact

Member

Namal Environmental Society

Event Manager

SKILLS

Verilog

python

C++

MATLAB

Linux

Proteus

Machine Learning

ETAP

Cisco Packet Tracer

PROJECTS

Final Year Project

Group

Integrated a cache prefetcher into the SweRV EH1 RISC-V core to improve instruction fetch efficiency and reduce CPI.

32-bit Pipelined RISC-V Processor (RV32I)

Group

Designed a 5-stage pipelined Verilog processor with GCC support, data forwarding, and hazard handling.

Crop Yield Prediction Analysis

Group

Built an ML pipeline using regression models and feature engineering on weather, soil, and farming data.

Residential Solar Power System

Group

Designed a residential solar power system with DC-DC conversion, battery storage, and stable 220V AC output.

Banking System & Home/Office network

Group

Banking System implemented in C++; Home/Office network designed and simulated in Cisco Packet Tracer.

CERTIFICATES

Certificate of Participation Namal Tech expo 2024

Robotics Category

PEC Generative AI Application Developer

Cohort 2

ACHIEVEMENTS

Winner – RISC-V Category, Namal Tech Expo 2026

Namal University Mianwali