Sidra Naveed

Electrical Engineer

sidranaveed561@gmail.com

03010053141

linkedin.com/in/sidranaveed

A dedicated Electrical Engineering graduate with a strong foundation in computer architecture, chip design, and machine learning. Passionate about developing innovative technologies and driven by a deep interest in advancing knowledge through research and practical applications. Actively seeking an opportunity in these specialized fields, with a commitment to contributing to cutting-edge advancements that benefit humanity.

EDUCATION

BS - Electrical Engineering
Namal University Mianwali

09/2021 - 07/2025 *3.87/4*

Major Courses

- Digital System Design
- Computer Architecture
- Digital Logic Design
- Digital Signal Processing
- Wireless Communications

WORK EXPERIENCE

Electronic Design Engineer, Internship
Optoelectronics pvt ltd, Lahore

07/2024 - 09/2024

Work on LED bulbs, Capacitor Manufactroing

Achievements/Tasks

- Gained R&D experience at a product-based company.
- Researched PCB design for smart fans with BLDC motors.
- Designed and developed 12W, 18W, and 10W LED bulbs using KiCAD and FlatCAM.

Research Assistant
AI and Big Data Centre

08/2023 - 09/2023

Administrative Tasks

- Organized a Summer School on "Supercomputing, AI, and Big Data Applications".
- Managed marketing and application coordination

Class Representative
Namal University Mianwali

10/2023 - 11/2024

Achievements/Tasks

- Represented student interests in meetings with faculty and administration.
- Coordinated class activities and events, fostering a positive and inclusive environment.

Teacher Assistant
Namal University Mianwali

09/2022 - 01/2023

Lab Assistant

Tasks

- Assisted in conducting undergraduate lab sessions

TECHNICAL SKILLS

FPGA | Raspberry pi Pico | RISC-V | MATLAB | Verilog HDL | Vivado HLS | Questa SIM | KiCad | FlatCAM | PyTorch | TensorFlow | Python | Assembly | C/C++

RESEARCH PROJECTS

High Speed Object Classification using GMSL camera and embedded GPU
- Achieved classification at 70FPS using mobilenetv2 on Jetson Xavier NX.

Detection of Diabetic Retinopathy using Convolutional Neural Networks
- Developed a CNN model in PyTorch for detecting diabetic retinopathy from retinal images.

Single Cycle RISCV Processor design
- Designed 32 bit RISCV single cycle processor using Verilog HDL.

Arithmetic and Logic Unit Calculator
- ALU is designed in Verilog at gate level and implemented in hardware.

Sound Amplifier
- Using BJT's configuration, a sound amplifier is designed.

Line Following Robot using Atmega328p
- Designed a line stringent robot using C language in Microchip Studio, programming at Atmega328p.

Speed Control of DC motor using Atmega328p
- Implemented DC motor speed control using ATmega328P, with simulation programmed in C using Microchip Studio

Designing a library management portal
- Developed a Python-based library management portal with a GUI interface for interactive user operations

TRAININGS

Corporate Readiness Training Program
Netsol Technologies, Pakistan

A 10-Day Workshop: How to Write and Submit a Research Article (02/2023 - 03/2023)
Center of AI and big Data, Namal University Mianwali

2 day Training on Soft Skills Development
Punjab Educational Endowment Fund, Pakistan