



Zohaib Saadat

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Education

FAST - National University of Computer and Emerging Sciences, Islamabad.

Bachelor of Science in Electrical Engineering

2025

Major: Computer & Embedded Systems

HeadStart, Islamabad

2019

A-Levels

Roots Millennium Schools, Islamabad

2017

O-Levels

Projects

Final Project: **Computer-Vision Based Road-Fault Detection Using YOLO11 and RTAB Mapping:** A device that uses Raspberry Pi 5 Camera module, LiDAR sensor (3D), IMU and a GPS module and detects potholes in real-time and sends its telemetries to the cloud services, creating a cloud Digital Twin, to ensure driver and vehicle safety and a better road infrastructure.

Semester Projects:

Wearable Smart Healthcare Device using ESP32 + ThingSpeak
Real-Time Task Scheduling Simulation for RTOS Analysis
Obstacle Avoidance + Line Following Autonomous Bot Using ATMEGA32
Audio Recording Analysis for Communication Systems using SSB+FDM
Travel Guide Program Utilizing Dijkstra's Algorithm in C++
Simplified ALU designed on NEXYS A7 FPGA Using Vivado HDL
Line Following Robot using Logic Based ICs
Designed a 3D car model using AutoCAD

Work Experience

Intern at xFlow research, Islamabad – Data Analytics & Research Engineer

Ongoing (10 months)

Teaching Assistant in courses: **Operating Systems & Computer Architecture**

2025

Teaching Assistant in course: **Basic Mechanical Engineering**

2024

Research Assistant in FAST NUCES Islamabad

2025

Skills & Tools

Professional Skills

Team Lead, Teamwork, Project Management, Communication Skills.

Technical Skills

Linux, MATLAB, C++, Python, ESP/RPi, Proteus, Cisco, AutoCAD, FPGA Programming (Nexys A7)

Achievements

FAST NUCES – 3x Gold Medals, 1x Bronze Medal + 4x Dean's List Award Recipient

First Runner's Up in HRC 2023 Maze Runner University Category.

Winner of Engineering Gameshow in NaSCon'23.

TasteFest '23 National Talent Hunt – Winner (Band - Fast Music Society)

NSTC – among top 20 in Pakistan in the STEMS Careers Program's National Physics Talent Contest (NPTC)

Training / Certification

ROS2 For Beginners (ROS Foxy, Humble – 2024) — Udemy

Neural Networks and Deep Learning — Coursera

Microelectronic solutions for digital photography — Open University (OU)

Fundamentals of TinyML — HarvardX (EdX)

IoT Edge Computing: Introduction to Amazon FreeRTOS — Amazon AWS Skillbuilder

Activities

Fast Engineering Society – President

IEEE Fast EE-Chapter – Vice-Head Marketing

Fast Music Society – Lead Guitarist

Job Fair '24 FAST NUCES – Head Usher

Interests

Music, Arts, Basketball & Research