Maaz Bin Fazal

 GitHub | in LinkedIn | 🌐 Portfolio | ✉ engr.maazbinfazal.ee@gmail.com | 📞 +92.34.007.31861

AWARDS AND HONORS

- Scored 120/160 in Duolingo English Test (IELTS **6.5/9** equivalent).
- YOLO optimization research (**paper under IEEE review**).
- Selected as **Team Leader** in academic projects.
- Received Merit Scholarship from the state in university.
- Led 50+ volunteers in state to prepare 500+ underprivileged students for university entrance exams.
- Participant in international hackathons.

EDUCATION

Islamia University of Bahawalpur	Bahawalpur, Pakistan	(Transcript)
Bachelor of Electronics Engineering	**CGPA: 3.31/4.00**	July 2021 – June 2025

FYP (Research Work)

Automated Fruit Quality Detection and Sorting Using Real-Time Deep Learning Image Processing

- Conducted research on **optimizing YOLOv8 architecture** for enhanced fruit quality detection accuracy in real-time applications.
- Developed & deployed an optimized deep learning model achieving **90%+ mAP**.
- Designed automated conveyor sorting with servo control to **reduce manual labor in agriculture**.

PUBLICATIONS

Fazal, Maaz Bin (Nov. 2025). "Low-Cost Real-Time Fruit Quality Assessment and Sorting Using YOLOv8 Model". In: vol. 1. 1. Under Review. IEEE. Islamabad, Pakistan, pp. 1–6. URL: https://drive.google.com/file/d/1_qz0AlJbwtJYv6BZYAZVAicIU4q6oeYm/view?usp=sharing.

Fzal, Maaz Bin (Oct. 2025). "Design & Implementation of AC to DC Converter for Efficient Power Conversion". In: *IEEE Access* 13.2. Under Review, pp. 1–12. URL: https://drive.google.com/file/d/1bkYkqsT0ej0S1e6l48NghiWyRJi9vXai/view?usp=sharing.

WORK EXPERIENCE

Recruiter, Ultimate Outsourcing LTD,London, UK — Apr. 2022 – May. 2022

– Assisted in sourcing and shortlisting candidates for **international clients**.
– Supported recruitment processes to meet client requirements efficiently.

Assistant to Hardware Engineer,CARE,Pakistan — Jun. 2022 – May. 2024

– Assisted in tracing circuits for **Pakistan Army helicopter** battery chargers and processes for autoclaves.
– Assisted in programming microcontrollers for **electric bikes** and various mini projects.

International Hackathon

Robo Styler – ETH Global AI Agent Hackathon 2025   Demo | Code

- Developed an **AI-powered Roblox styling agent** using Coral Protocol, Mistral AI, Firecrawl, and ElevenLabs.
- Built a Node.js backend integrated with Roblox Studio (Luau, HttpService) enabling **real-time outfit generation and marketplace transactions**.
- Deployed on Nebius AI, open-sourced the code on GitHub, and registered the agent in the Coral Registry.

Academic Projects

Students Performance Prediction System   Demo | Report | Code

- Built a **predictive system** using ML algorithms (Random Forest, SVM, Logistic Regression).
- Deployed the model on Render with GitHub integration for **web access**.
- Enabled **early detection of at-risk students** for academic support.

Home Automation System   Report

- Designed **IoT-based smart home automation** using Arduino and mobile app.
- Implemented **real-time monitoring** and remote control via Wi-Fi.
- Delivered an **energy-efficient and user-friendly** automation solution.

Industrial Automation with PLC   Tasks | Demo

- Programmed Siemens and Fatek PLCs for automation of motors and processes.
- Developed ladder logic for water tank level monitoring and traffic signals.
- Created **small-scale demos simulating real-world industrial automation**.

Vending Machine (Verilog)   Report

- Designed a vending machine in **Verilog HDL** and implemented on **Spartan XC400 FPGA**.
- Added coin recognition and purchase logic for digital transactions.
- Improved convenience and fairness through **optimized hardware design**.

Skills

Programming Languages	HTML5, C++, Python, Assembly Language, VHDL
Libraries & Frameworks	NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, Overleaf/LaTeX
Simulation & Design Tools	MATLAB/Simulink, Proteus, Viper, Power Esim, Tinkercad, CubeMX
Software & IDEs	Keil, Arduino IDE, VS Code, PyCharm, Google Colab, Jupyter Notebook, Microsoft 365, Meero
Version Control	Git, GitHub