Maaz Bin Fazal

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Objective Statement

To be a part of a goal-oriented institute using my problem-solving, interpersonal and leadership skills to optimize the design and development of IT solutions, **Innovative AI solutions**, **electronic systems**, **chip architectures and embedded solutions** to drive maximum productivity and innovation in the industry.

Education

(Transcript)

UCET Islamia University of Bahawalpur — Bahawalpur, Pakistan
Bachelor of **Electronics Engineering CGPA 3.31/4.00** — July 2021 - June 2025

Awards and Honors

(Link)

- Scored **120/160** in **Duolingo English Test (IELTS 6.5/9** equivalent**)**.
- Selected as Team Leader in Academic projects.
- Get **one merit scholarship** from **state** in university.
- Led 50+ volunteers in state to prepare 500+ underprivileged students for university entrance exams.
- Conducted research on YOLO optimization; paper currently under review at an **IEEE conference**.

Working Experience

Ultimate Outsourcing LTD, Bahawalpur, Main Office(London EC1V 2NX, United Kingdom)
Recruiter — Apr 2022 - May 2022

Centre of Automation,Rebotics & Embedded Systems-IUB,Pakistan
Assisstant to Hardware Engineer — Research center,(June 2022 – May 2024)

- Assisted in tracing circuits and soldering for Pakistan Army helicopter battery chargers.
- Traced faults and checked datasheets to observe working 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)**

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

FYP (*Research Work 🔗*)

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

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

Academic Projects

Students Performance Prediction System (*Prediction System 🔗*)

- Implemented machine learning algorithms to predict student performance.
- Deployed the application using GitHub and Render for web-based access.
- Enabled early detection of at-risk students for targeted academic support.

Home Automation System (*Home Automation 🔗*)

- Developed a smart home automation system using Arduino with mobile app control.
- Enabled remote operation of household appliances with real-time responsiveness.
- Delivered a cost-effective, energy-efficient solution with user-friendly design.

Industrial Automation System using PLC (*PLC Work 🔗*)

- Utilized Siemens and Fatek PLCs to develop an industrial automation system for motor control.
- Developed ladder logic using Siemens PLC to maintain water tank level..
- Developed a traffic signal system and mini automation projects using Siemens and Fatek PLCs.

Vending Machine (*Vending Machine 🔗*)

- Developed a vending machine using Verilog hardware description language for digital purchasing.
- Designed a vending machine based on user requirements to function like a cashier in a canteen.
- Improved user convenience and fairness by implementing the design on Spartan XC400.

Skills & Tech

- **Languages:** HTML5, C++,**Python**, **Assembly language programming, VHDL**
- **Libraries:** NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn
- **General Software**: Microsoft 365,Meero,
- **Version Control:** Git, GitHub
- **Frameworks:** Overleaf/LaTeX for documentation
- **Simulation Tools:** MATLAB/Simulink,Proteus,Viper,
- **Software & IDEs:** Cube MX, Keil, Power Esim,Tinkercad Arduino IDE,VS code, PyCharm, Google Colab, Jupyter Notebook

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