

FATIMA EHSAN

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• bit.ly/Engineer-Fatima-Ehsan-LinkedIn

Education

INFORMATION TECHNOLOGY UNIVERSITY

Lahore, Pakistan

Bachelor in Computer Engineering (CGPA 3.27)

September 2021 - Present

UNIQUE GIRLS HIGH COLLEGE

Lahore, Pakistan

Intermediate in Computer Science (Grade A+)

June 2019 - July 2021

Professional Experience

FIVERR

July 2023 - Present

Engaged in signal processing freelance work on Fiverr, a leading online marketplace for various professional services.

- *Client Interaction:* Collaborated with diverse clients globally, completed over 30 projects.
- *Skills development:* Executed projects with quality results (signal processing, sampling, filtering).

Skills

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- *Technical Skills:* MATLAB Programming, Microcontroller Programming, Arduino C/C++, HTML, CSS, JS, PHP, C, C++, MySQL, Machine Learning, Deep Learning, Hardware/circuit Designing
 - *Tools/Softwares:* MATLAB, STM32cubeIDE, Google Colab, CLion, VS Code, ArduinoIDE, Wamp Server, Ubuntu OS, Multisim, Vivado, SolidWorks, Jira, Notion, Github, TinkerCAD

Academic Projects

BATTERY STATE MONITOR CIRCUIT – ITU LAHORE

October 2021

- Devised a circuit that turns on the LEDs according to the battery's charging state.

ONLINE HOTEL MANAGEMENT SYSTEM – ITU LAHORE

November 2021

- Implemented a C++ code with all the hotel reservation features.

2 STAGE AUDIO PRE-AMPLIFIER – ITU LAHORE

March 2022

- Constructed an amplifier that takes input from the mic and amplifies it 2 times.

ONLINE AIRPORT MANAGEMENT SYSTEM – ITU LAHORE

April 2022

- Executed a system with all the features to book a ticket for your flight using C++.

ELEVATOR CONTROLLER – ITU LAHORE

January 2023

- Demonstrated an elevator with STM32cubeIDE coding and STM microcontroller circuit.

PHONE MOVEMENT DETECTION MODEL – ITU LAHORE

June 2023

- Developed with an Edge Impulse-trained ML model, tested on smartphones.

ATTENDANCE MANAGEMENT SYSTEM – ITU LAHORE

November 2023

- Created an online system to manage attendance via front and backend development.

HAND GESTURE RECOGNITION FOR ROCK PAPER SCISSORS GAME – ITU LAHORE

May 2024

- Trained and deployed a CNN based deep learning model with a front-end to play RPS game.

HAND GESTURE CONTROLLED CAR USING STM32 IoT DISCOVERY KIT – ITU LAHORE

June 2024

- Designed and programmed the robot car and hand glove to detect and move the car using BLE.

Extracurricular & Volunteer Experience

IET SOCIETY

September 2023 - Present

- *General Secretary:* Led 50-member team, organized many successful events.

CONFINITI

December 2023 - Present

- *Campus Lead:* Campus Lead representing university on major tech platforms.

IEEE SOCIETY

September 2023 - Present

- *Program Member:* Organized university events: seminars, webinars, tech competitions.

GDSC SOCIETY

August 2023 - Present

- *Event Manager:* Conducted events and programming competitions (CodeRush, PITB seminar, etc.)

Honors and Awards

ACADEMIC SCHOLARSHIPS

June 2019 - July 2021

- Received a full merit-based scholarship worth 208,000 Rupees from Unique Girls High College.

ONLINE COURSES

August 2023

- Introduction to Embedded Machine Learning – Coursera

FREELANCE

May 2024

- Level one seller – Fiverr