# Fatima Shafiq

 ♦ Lahore, Pakistan
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## Summary

Driven AI/ML engineer with a strong foundation in deep learning, computer vision, and NLP. Proficient in Python, TensorFlow, and PyTorch, with hands-on research and project experience. Eager to pursue a PhD in Data Science or Artificial Intelligence to advance impactful research and innovation

#### Education

University of Engineering and Technology M.S. in Computer Science, Artificial Intelligence 3.58—4 cgpa	Sept 2022 - May 2024
University of Engineering and Technology B.S. in Computer Science 3.40—4 cgpa	Sept 2018 - Apr 2022
Narowal Public School and College Secondary and Intermediate A+ Grade	Apr 2014 - Apr 2018

## Experience

# Industry Experience

#### Business Account Manager - Remote

Richardson TX, USA Nov 2024 - May2025

- Managed client acquisition and engagement through LinkedIn and freelance platforms for projects in Python, MERN stack, and Ruby on Rails.
- Coordinated with development teams to define scope and deliverables for web development, project management, and business analysis tasks.
- Oversaw client communications, proposal creation, and ensured alignment between technical teams and client objectives.

# Associate Business Developer - Remote

Lahore, Pakistan Sep 2023 – Oct2024

- ZAPTA Technologies Pvt.ltd. zaptatech.com 🗹
  - Generated leads and secured projects through LinkedIn and freelancing platforms for Python development, MERN stack, and software solutions.
  - Collaborated with technical teams to scope projects in web development, project management, and business analysis.
  - Managed client communication, proposal drafting, and initial project planning to align business needs with technical execution.

# Intern Business Developer - Remote

Gutech International LLC. gutint.com 🗹

Forney, TexaS, USA Jun 2023 - Aug2023

- Identified and engaged clients for AI, MERN stack, and web development projects through targeted outreach.
- Collaborated with tech teams to prepare proposals aligned with client needs and technical scope.
- Supported lead generation and conversion using CRM tools and data-driven strategies.

#### Academia

### Teaching Fellow — Institute of Data Science

University of Engineering & Technology

Lahore, Pakistan Dec 2024-Present

- Teaching core undergraduate courses: Discrete Mathematics, AI, Data Structures, Programming Fundamentals (PF), OOP, and DBMS.
- Conducting hands-on lab sessions to reinforce theoretical concepts through practical implementation.
- Mentoring students in both coursework and lab work to strengthen problem-solving and programming skills.

#### Teaching Assistant — Institute of Data Science

University of Engineering & Technology

Lahore, Pakistan Sep 2024 – Dec 2024

- o Taught Discrete Mathematics with a focus on Data Science applications.
- Conducted lab sessions for AI, Introduction to data science, AICT and Database Management Systems (DBMS).
- Supported course delivery through hands-on instruction and student mentoring.

#### Teaching Assistant — Department of Computer Science

University of Engineering & Technology

Lahore, Pakistan Aug 2023 – Aug 2024

- Conducted lab sessions for AI, OS, Computer Networks, and Assembly Language.
- Assisted students with practical tasks and reinforced key technical concepts.
- Provided technical support for labs and one-on-one student guidance.

Lecturer

Lahore, Pakistan

Jan 2023 - Aug2024

- Govt. Islamia College Railway Lines
  - Taught core CS subjects: DBMS, Networking, and Operating Systems to FSc and ADP students.
  - $\circ\,$  Designed practical labs and assignments to reinforce key technical concepts.
- Mentored students to strengthen problem-solving and foundational CS skills.

#### **Publications**

## Extreme Heat Prediction through Explainable AI and Deep Learning

May 2025

MS Thesis, Fatima Shafiq, Journal: Plos One

Click to see.

# HowAICanFacilitate Continuous Education and Skills Development for Adults throughout Their Careers

May 2025

Fatima Shafiq, Journal: Review of Applied Management and Social Science

Click to see.

## **Projects**

# Extreme Heat Prediction through Explainable AI and Deep Learning

Apr 2023 - Mar 2024

MS Thesis Project

- Preparation of XWeather dataset by collecting and pre-processing 5 years of meteorological data (2018-2022) sourced from PMD, which includes label encoding and scaling of numerical features.
- Proposed a framework utilizing three deep learning models including ANN, CNN, and LSTM to predict extreme heat events, with LSTM achieving the highest accuracy in forecasting these events.
- Applied SHAP and LIME XAI to extract high impact features for precise heat event prediction. By pinpointing and justifying the most critical features, I effectively filter out low-value data, significantly boosting model accuracy and reliability.
- o Tools: Python, TensorFlow, XAI, DL

# An IoTBased Smart Lab with Facial Faced Attendance System

Mar 2021 - Mar 2022

BSc Final Year Project

- Developed an IoT-based smart lab with facial recognition for automated student attendance.
- Integrated web and mobile apps to control both electronic and non-electronic lab elements such as lights, fans, doors, windows, and curtains.
- Built using Django, Python, and React for seamless backend and frontend interaction.
- o Tools Used: Django, Python, React

#### **Technologies**

Programming Languages: Python, C++, SQL.

**Algorithms:** ML, DL, Explanable AI, SHAP, LIME.

Libraries & Tools: NumPy, Pandas, Scikit-learn, OpenCV, Git, Docker, Matplotlib.

Tools: Dev C++, Visual Studio, Latex, MS Office, Anaconda.

## Scholarships

- Peef Master Level Scholarship: Merit Based Scholarship.
- o Ehsas Scholarship: Bachelor Level Merit Based Scholarship.

#### Achievements & Certifications

- Generative Artificial Intelligence in Research, Teaching, and Professional Development Issued by QEC UET
- $\circ$  Enhancing the Quality of Programs through Micro-teaching Issued by UET
- ITEC Master Research Poster Presentation Issued by UET
- o Second Position in Final Year Project Competition 2022 UET Lahore
- o Runner-up in Badminton and E-Gaming Sports Gala 2022, UET Sports Society
- o Certificate in English Speaking Smart Start (2019)
- o Beginner Graphic Designer GDC Batch 2 (2022)

#### Courses

- Lead Generation Foundation by LinkedIn.
- o Learning LinkedIn Sales Navigator by LinkedIn.
- Beginner Graphic Designer from Codator UET.
- English Speaking by Smart Start.

#### Languages

- o English
- o Urdu

## Recommendations

- Prof. Dr. M. Shoaib DEAN of Electrical Engineering at University of Engineering and Technology, Lahore. Email: shoaib@uet.edu.pk
- o Prof. Dr. Shazia Arshad Director at Institute of Data Sciences, UET Lahore. Email: shazia.shoaib@uet.edu.pk
- Dr. Amna Zafar Associate Professor at Department of Computer Sciences, UET Lahore. Email: amnazafar@uet.edu.pk
- Dr. Khaldoon Khurshid Associate Professor at Department of Computer Sciences, UET Lahore. Email: skhaldoon@gmail.com
- o Dr. Faiza Iqbal Assistant Professor at Institute of Data Sciences, UET Lahore. Email: faizaiqbal@uet.edu.pk