



Mariyam Zaman

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● ABOUT ME

I'm a backend-focused developer with a strong foundation in FastAPI/Django and database management (PostgreSQL, Neon, MongoDB). I have experience building scalable APIs and backend systems that support Engineering complex workflows. I have also exposure of AWS for database management and EC2 instances While my main strength is on the server side, I also have experience with Next.js for full-stack development. I'm passionate about research, innovation, and creating efficient, real-world solutions.

● WORK EXPERIENCE

01/10/2024 – CURRENT Remote, Pakistan

FULL STACK DEVELOPER FREELANCE

Developed and deployed several **simple, responsive websites** for local businesses and personal portfolio using modern front-end framework Next.js.

Created reusable components and optimized images, fonts, and layouts for fast load times.

Integrated contact forms, email automation, and Google Maps for better user engagement.

Designed and developed a full-stack web application for a German client focused on Manhour Reduction based on Industrial Complex Workflow. The backend was built using FastAPI and Neon Database, while the frontend was developed using Next.js. Deployed the application on Vercel (frontend) and Render/AWS (backend), ensuring a seamless and efficient live experience.

01/01/2023 – CURRENT Islamabad, Pakistan

RESEARCH ~ INNOVATION & DEVELOPMENT ZONG CMPAK

I have developed and implemented In-House Platform for Engineering Department using Python Frameworks PyQT/teradata/Fastapi for productivity enhancement. Majorly focus includes data processing, automating repetitive tasks, web scraping, and integrating various systems to improve productivity. With my experience, I focus on delivering actionable insights from complex datasets and automating processes to increase overall operational efficiency. Moreover, Team lead for backend development for the In house Autonomous Tool.

- **KPI Reporting & Monitoring:** Ensured Zong's SLA thresholds were met by analyzing key performance indicators and conducting network audits using automated solutions. Power Point Presentation Autogenerated using Visual Basics.
- Leveraging PySpark, I processed and **analyzed millions of customer transactions** to uncover key purchasing patterns and trends.
- By utilizing Python framework PySpark, I optimized **ETL pipelines**, filtering, and aggregations for efficient data processing. Additionally,
- In the **telecom industry**, I worked with **Hadoop/PySpark** to process **terabytes of network logs**, analyzing **signal strength, bandwidth usage, and dropped calls**. By designing **optimized Hive queries**, I extracted critical insights from large-scale data stored in **HDFS**. Furthermore, I built **Excel in house dashboard for Team** to monitor daily **network performance** across various regions, ensuring improved service quality and operational efficiency.
- **Big Data Processing for Network Audits:** Conducted scheduled and spontaneous network audits using Python, processing vast amounts of telecom data to detect strengths, weaknesses, and degradation causes while proposing data-driven improvement plans.
- Automation to optimize workflows, reduce manual effort, and enhance efficiency. Transformed manually generated reports into automated, real-time solutions, significantly improving reporting speed and accuracy across the department.
- **Traffic Analysis:** Performed an extensive nationwide site traffic analysis, leveraging data-driven insights for better capacity planning.



- **Intelligent Data Processing:** Built a comparative model for analyzing multiple dump files based on a single entity using Python.
- **Region Identification Automation:** Automated region information extraction from ZTE Delta files, streamlining data processing.
- **End-to-End Digital Technologies Intelligent Capacity and Management Planning Platform:** On Single Click, providing detailed analysis and recommendations, the tool enables operators to make informed decisions regarding high utilization cells, ensuring efficient resource allocation and network optimization resultantly reduce the manhour reduction of **115 hours per week**. Backend using FAST API, Machine Learning KNN.
- **Research & Development:** Conducted 5G research and also drafted a Intelligent and Self Network Optimization mechanism with vision of 1 Million Dollar annual cost reduction , Complex neighboring audits using Python, contributing to improved network optimization for Call Drop Rate Improvement.

Recognition: Awarded "Champ of the Month" 4 times over 2 Years for outstanding contributions. Get the Finance Support for further studies due to High performance evaluation as best employee over the year.

01/10/2022 Islamabad, Pakistan

MACHINE LEARNING ENGINEER (HYBRID) LYCEUMERCE

In 1st year of career role as a Machine Learning Engineer with a focus on Deep learning

- Designed an **AI-powered vehicle tracking** system using YOLOv5 for real-time vehicle detection and theft prevention. I worked as
- Integrated **license plate recognition (OCR-based)** to identify unauthorized vehicles.
- Contributing to the creation of document classification models using sophisticated deep learning architectures such as CNNs and LSTMs, enabling automatic categorization of vast amounts of text data and enhancing information organization and retrieval efficiency.
- Trial for AWS Bedrock Services: Leveraging AWS's foundational services such as Amazon Sage Maker, AWS Lambda, and Amazon S3 to build scalable and reliable NLP solutions, ensuring seamless deployment and efficient management of machine learning pipelines.

10/07/2019 – 31/08/2019 Faisalabad, Pakistan

WORDPRESS INSTITUTE ARQAM

Key Responsibilities:

- Assisted in the development and customization of WordPress themes and plugins under the guidance of senior developers.
- Gained hands-on experience in HTML, CSS, PHP, and JavaScript for building responsive and dynamic websites.
- Contributed to the successful delivery of 2+ client websites during the internship.

● **EDUCATION AND TRAINING**

01/10/2017 – 25/08/2021 Lahore, Pakistan

B.SC. ENGINEERING University of Engineering & Technology Lahore

Website <https://www.uet.edu.pk/home/> | **Level in EQF** EQF level 6

01/12/2019 – 31/01/2023 Faisalabad, Pakistan

ARTIFICIAL INTELLIGENCE & COMPUTING Presidential Initiative of Artificial Intelligence & Computing

Website <https://www.piaic.org/> | **Level in EQF** EQF level 7

01/01/2022 – 01/03/2022 Lahore, Pakistan

DATA SCIENCE Professional Freelancing Training Program

Website <https://pftpedu.org/> | **Level in EQF** EQF level 6

● **COMMUNICATION AND INTERPERSONAL SKILLS**

Neuro-linguistic programming

The training helped me develop a better understanding of how to influence others, and achieve personal & professional goals by applying NLP strategies.



LANGUAGE SKILLS

Mother tongue(s): **URDU**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

HONOURS AND AWARDS

04/08/2022

Gold Medalist – Professional Freelancing Training Program

Awarded Being Woman contributor towards digital industry by participating in the project