

Areeba Kushef

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Professional Summary

Results-driven **Backend Developer** and **AI/ML Engineer** with strong skills in building **scalable APIs**, **deploying ML models** and designing efficient data systems. Experienced in **Python frameworks (FastAPI, Django)**, **RESTful services**, and **AWS**. Passionate about delivering production-ready **AI** solutions.

Education

B.Sc. Electrical Engineering, University of Engineering and Technology, Lahore Oct 2020 – Jun 2024

- **Major:** Artificial Intelligence and Internet of Things (IoT)
- **Coursework:** Machine Learning, Deep Learning, Computer Architecture, Computer Networks

Work Experience

Professional:

AI Developer, Symtera Technologies – Lahore July 2024–Present

- Develop and deploy data integration services using FastAPI and PostgreSQL, ensuring secure, efficient, and scalable data exchange across applications.
- Build and maintain AI processing pipelines, including model orchestration, data validation, and quality testing to support end-to-end automation.
- Design and integrate Large Language Model (LLM) APIs and custom AI engines to enhance intelligent workflows and data-driven decision-making.

Python AI/ML Engineer, SoftVerx Pvt Ltd – Lahore Jun 2024 – Jan 2025

- Led the design and implementation of back-end systems and ML pipelines for a project with LESCO.
- Processed large-scale image and tabular datasets to build AI solutions with scalable Flask-based APIs.
- Integrated ML models into back-end services for seamless deployment in production environments.

Python + AI Trainee, Purelogics – Lahore Jun 2023 – Sep 2023

- Supported back-end API development and ML model deployment in cloud-based environments.
- Focused on pre-processing, feature engineering, and model integration tasks to support scalable back-end systems.

Voluntary:

Chairperson, Computational Intelligence Society – IEEE UET Lahore Sep 2023 – May 2024
Chairperson, Finance Team – IEEE UET Lahore Mar 2023 – Aug 2023
Chairperson, EdSoc Team – IEEE UET Lahore Sep 2022 – Mar 2023
General Secretary, Web Development Chapter – IEEE UET Lahore Oct 2021 – Aug 2022

Technical Skills

Backend Development:

- **Languages & Frameworks:** Python, C, FastAPI, Django, Flask, RAG Systems, LangChain, CrewAI
- **Server & Runtime:** Uvicorn, Gunicorn
- **API Integration:** REST APIs, Webhooks, OpenAI, DeepSeek, Gemini, Perplexity, ElevenLabs, Twilio
- **Databases & Caching:** PostgreSQL (pgAdmin), MySQL, SQLite, MongoDB, AWS DynamoDB, Firebase, Supabase, Redis
- **Cloud & DevOps:** AWS (IoT Core, Lambda, EC2, IAM, API Gateway), Google Cloud Services, Docker, GitHub, WSL (Ubuntu)
- **Task Queues & Asynchronous Processing:** AWS (IoT Core, Lambda, EC2, IAM, API Gateway), Docker, GitHub
- **Testing & Deployment:** Unit Testing, CI/CD, Git, Docker, Postman

Artificial Intelligence / Machine Learning:

- **ML Algorithms:** Classification, Regression, XGBoost, Random Forest, AdaBoost, KNN, PCA
 - **DL Frameworks:** TensorFlow, PyTorch, Keras
 - Model Training, Evaluation, Feature Engineering
 - **Computer Vision:** OpenCV, YOLOv8, OCR (Tesseract, EasyOCR, PaddleOCR)
- Data Science & Analysis:**
- Supported backend API development and ML model deployment in cloud-based environments.
 - Focused on preprocessing, feature engineering and model integration tasks to support scalable backend systems.

Low-Code Automation & Integration:

- **Platforms:** n8n, Make, Cursor/Windsurf
- Front-End (Basic Knowledge):** HTML, Tailwind CSS, Bootstrap, Chart.js, Next.js
- **UI Prototyping:** Figma

Projects

- **AI-Enabled Self-Learning Greenhouse** (*Final Year Project*): Developed backend Machine learning logic to optimize greenhouse climate conditions in real-time
- **Library Management System**:Built using FastAPI with PostgreSQL for CRUD operations and user management.
- **AWS IoT Ecosystem for Smart Devices**:Engineered backend using AWS IoT Core, Lambda, API Gateway, EC2 and Flask to manage smart home data streams.
- **Text-to-Speech Web App**:Created Flask backend with Whisper API to convert user text into audio.
- **YouTube Transcription Summary Tool**:Backend app using Flask and OpenAI for summarizing YouTube videos via prompts.
- **Electric Meter OCR**:Implemented backend logic to read electric meters using YOLOv8 and OpenCV.
- **English to French Dubbing Tool**:Python backend integrating OpenAI and ElevenLabs APIs for voice translation and cloning.
- **Speaker Identification using ML**:Trained and deployed model via RESTful API for audio-based speaker recognition using SVM, librosa and pyaudio.
- **Uno Card Classification**:Packaged ML model into an API for classifying Uno cards.
- **Real-Time Facial Recognition**:Built a real-time backend pipeline for facial recognition from webcam feed.
- **IEEE UET Website Revamp**:Contributed primarily to backend improvements for performance and functionality.

Certifications

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| • Python for Data Science, AI and Development – IBM | • Semantic Segmentation using Amazon SageMaker – AWS |
| • Develop LLM-powered Applications – LangChain | • Optical Character Recognition using PyTorch – Personal Project |
| • OpenCV Masterclass – Online | • Python Application with MongoDB – Online |
| • Build Computer Vision Apps with Azure Cognitive Services – Microsoft | • Python Website with Django and Flask – Online |
| • Create AI Assistant with ChatGPT – Coursera Guided Project | • Introduction to DevOps – IBM |

Academic Activities & Awards

3rd Rank – Softec, FAST University Lahore	February 2024
Runner-Up – GIKI NEO Programming Competition, IEEE GIKI	February 2023
Head – Summit on Soft Skills, IEEE UET	March 2023
Lead Organizer – Front-End Web Dev Workshop, IEEE UET	March 2022