MUKARRAM RAZZAQ

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MUKARRAM-ONE (github.com)

Objective

Certified Python IT Specialist with hands-on experience in AI, computer vision, and data-driven applications. Innovative and ambitious software engineering student with a strong focus on Python and AI. Experienced in developing intelligent agents, working with OpenAI SDKs, and exploring modern developer tools like UV package manager. Passionate about building next-generation applications in AI, automation, and scalable software systems, while continuously learning and contributing to impactful projects.

Experience

Python Developer | AI & Data Enthusiast | IT Specialist (Certified by Pearson)/Although I am new to the field of software development, I am committed to learning and growing in this industry. My current focus is on building a strong foundation in key programming languages like Java, TypeScript, HTML, and CSS, and I am eager to apply my skills in a professional setting through an internship opportunity.

Machine Learning Intern – *Arch Technologies*

Remote | June 2025 – Aug 2025 (2 Months)

- Worked on **machine learning models** for data analysis and prediction.
- Gained hands-on experience with **Python, Scikit-Learn, TensorFlow, and data preprocessing**.
- Contributed to **developing and testing ML pipelines**, improving accuracy and performance.
- Collaborated remotely with senior engineers, enhancing teamwork and professional communication skills.

Technical Skills

- **Core Programming:** Python, Java, TypeScript, HTML, CSS
- **AI/ML Tools:** PyTorch, TensorFlow, OpenCV, Scikit-Learn
- **Frameworks & Tools:** Next.js, Node.js, Django, Fast Api, Flask, Spring Boot, Git, VS Code, PyCharm, IntelliJ, Trea, Cursor, Google Firebase Studio, AI Driven Development using WSl and Ai command line tools
- **Other:** Data Visualization (Matplotlib, Plotly), Streamlit, Vercel, Netlify

Certifications

- IT Specialist: Python – *Pearson, 2025*
  Credly Verification

Projects

Typescript | Link.

Currently building a solid understanding of Typescript, focusing on its fundamental concepts such as types, interfaces, and basic syntax, and eager to apply this knowledge to real-world projects.
You can also Visit to my Personal Profile : **Portfolio Website**

Java | Link

Developed a basic currency converter application using Java, designed to convert predefined currency values (e.g., USD to EUR) without fetching real-time data. This project helped solidify my understanding of Java fundamentals, including object-oriented programming, user input handling, and basic arithmetic operations.

Python/Cloud Application Developer – Azure Disaster Response System | Link.

GitHub: https://github.com/MUKARRAM-ONE/azure-disaster-response
Live Application: https://blue-sand-0ebf47300.1.azurestaticapps.net/

Designed, developed, and deployed a cloud-based disaster response application using Microsoft Azure. Built and hosted the application using **Azure Static Web Apps , Azure Functions , CosmosDB (CoreSQL) , Auth0 , JWT, Bycript hashing**, gaining hands-on experience with cloud deployment, environment configuration, and application lifecycle management. Implemented a live, production-ready system accessible to end users, demonstrating practical understanding of cloud computing concepts, scalability considerations, and real-world deployment workflows.

Python: BMI Calculator | Link

I developed a **BMI Calculator** using **Python**, incorporating a user-friendly web interface with Streamlit. The project features dynamic visualizations created using **Plotly** and **Matplotlib** to display BMI results and health categories in an interactive and engaging way. Users can input their height and weight, receive instant BMI calculations, and view corresponding health status feedback. This project helped me strengthen my skills in Python programming, data visualization, and building responsive web applications, while also enhancing my understanding of integrating multiple libraries to create a smooth and intuitive user experience.

Python: Facial Emotion & Gender Recognition | Link

Developed a real-time **Facial Emotion and Gender Detection** system using **Convolutional Neural Networks (CNNs)** and **OpenCV**. Trained the model in **Google Colab** with TensorFlow and PyTorch, achieving high accuracy through best-epoch selection and data preprocessing. Integrated a **Streamlit-based interface** for webcam and image-based predictions, demonstrating model deployment and real-time AI inference capabilities.

Python: Finger Counter | Link

Developed a **real-time finger counting application** using **Python and OpenCV**, capable of detecting hand landmarks and identifying the number of raised fingers through geometric analysis. Implemented efficient landmark tracking for accurate gesture detection under varying lighting and orientations. The project demonstrates practical skills in

computer vision, image processing, and gesture recognition using webcam-based input.

Python: Invisible Cloak | Link

Implemented a real-time **invisibility effect** using **Python and OpenCV** by detecting a user-worn cloth in a specific color and replacing its pixels with a pre-captured background. The system uses HSV-based color masking, morphological operations, and frame blending to create a seamless illusion of disappearance. Demonstrates skills in **image segmentation, video processing, and creative computer vision techniques**.

Python: OCR-Based Document Analysis | Link

Developed a **multilingual OCR system** using Python and PyTorch that performs document layout analysis and extracts text with high accuracy. The project handles complex document structures and multiple scripts, reconstructing the text while preserving formatting. Conducted experiments and visualizations in a **Google Colab notebook**, demonstrating end-to-end OCR pipeline capabilities and performance evaluation.

Academic Research Abstract — Computer Vision Projects:

Developed multiple computer vision projects involving **deep learning, OCR, and real-time detection**. Implemented a **Facial Emotion & Gender Recognition** system using CNNs and OpenCV, trained in **Google Colab** with TensorFlow/PyTorch and deployed via Streamlit. Built a **Multilingual OCR-Based Document Analysis (OEL)** pipeline in PyTorch for text extraction and layout understanding. Experimented with **YOLO-based object detection models** for real-time vision tasks, focusing on performance optimization and dataset labeling. These projects demonstrate strong practical skills in **AI, ML, and Computer Vision**, combining academic research with hands-on model development and deployment.

Python/AI: Open Source Collaborator – Skintelli (AI Healthcare Project) | Link

Contributed as an **open-source collaborator** to ***Skintelli***, an **AI-driven skin disease analysis platform**. Actively participated in collaborative development by working on Python-based components and improving integration of machine learning logic within the application. Engaged in team-based development using GitHub, contributing through pull requests, issue tracking, and collaborative code reviews. This experience strengthened practical skills in version control, collaborative software development workflows, and maintaining clean, readable code within an existing production codebase.

Python/AI: AI Spec-Driven Development (Hackathon Project) | Link

Developed a fully **AI-driven software development** workflow that converts natural language specifications into structured documentation, tasks, and implementation plans. Built an automated system using **Spec-Kit Plus** commands to generate modules, chapter specifications, project plans, and a complete **Docusaurus documentation site**. Documented the entire pipeline as an interactive book demonstrating AI-assisted architecture design, planning, and development workflows. This project highlights practical experience with **agentic AI systems, OpenAI SDKs,** and **command-line automation** using WSL, showing the ability to design modern AI-powered developer tooling and scalable documentation pipelines.

Live book | Link

Soft Skills

• Proficient with Workday • Team player • Excellent time management skills • Conflict Management • Public Speaking • Team Work • Leadership • Creativity

Education

FEB 2023 - PRESENT

Bachelor of Science in Software Engineering/IQRA University, Karachi, Sindh.
Cumulative Point Grade Average (CGPA): 3.34 / 4.00
Relevant Courses About Programming:

- Intro to Information & Communication Tech
- Programming Fundamentals
- Object Oriented Programming
- JAVA Early Objects
- C ++
- Discrete Structure
- Calculus & Analytical Geometry
- Linear Algebra & Differential Equation
- Operating Systems
- Data Structures & Algorithms
- Software Engineering
- Probability & Statistics
- Introduction to Python
- Computer vision
- Advance Python Programing
- Agentic AI Using OpenAI SDK and Spec-Kit
- Cloud Computing
- Artificial Intelligence
- Formal Method
- Fuzzy logics in AI

Extra-Curricular Activities

- Technology Enthusiast: Actively stay updated with the latest trends and advancements in technology, regularly watching and researching new software tools, programming languages, and development frameworks to enhance my knowledge and skills.
- Member of Sportika Sports Club: Actively participate in Sportika, a university sports club, contributing to the organization and promotion of various sports events, fostering teamwork and leadership skills.

Qualities

A cooperative and active team worker.
Can work in challenging circumstances.
Self-motivated and optimistic thinker.
Ability to deal with people successfully.

Reference

Available upon request.