

Muhammad Humair

AI/ML & Automation Engineer

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Profile

Data Scientist skilled in statistical analysis, machine learning, and deep learning, with hands-on experience in Agentic AI, RAG, LangChain, and n8n. Adept at extracting insights from complex datasets and building intelligent, automated solutions for real-world problems.

Education

Bachelors in Data Science

Sep 2020 – Jun 2024

KFUEIT

RYK, PAKISTAN

I completed my Bachelor's in Data Science with a CGPA of 3.68. Throughout my degree, I gained in-depth knowledge in fields such as machine learning, statistical modeling, data analysis, and data visualization. I also developed strong programming skills in Python and worked on various projects that honed my ability to apply theoretical concepts to real-world problems.

Professional Experience

Associate AI/ML Engineer

Dec 2025 – Present

Zaavia

Karachi

During my job at Zaavia, I worked on **AI receptionist automation** and several workflow automation solutions using **n8n and Make**. Alongside automation, I also contributing to machine learning-based projects.

Associate AI/ML Engineer

May 2025 –

Virtual Soft

Nov 2025

Sadiqabad

During my job at Virtual Soft, I worked on projects including an **IDS with xNIDS integration**, **CLAM-based lung cancer classification**, and a **calorie estimator**. I also built an AI study recommendation system, RAG applications, and n8n workflow agents (**email reply**, **customer feedback**, and **call center automation**), gaining strong hands-on experience in AI and ML.

During my internship at TechWithWarriors, I worked on *COVID-19 Analysis*, *Customer Segmentation*, and *Exploratory Data Analysis* projects. These experiences enhanced my data analysis skills and provided valuable hands-on experience.

 Skills

- Machine Learning/Deep Learning
- NLP/Computer Vision
- Data Analysis (PowerBI, Tableau & Metabase)
- Programming Languages (Python, SQL, JavaScript)
- Agentic AI
- n8n, Make, Zapier & OpenClaw
- RAG, MCP, GHL & AWS

 Languages

- English
- Urdu

 Projects

WhatsApp Attendance System — Leave & Late Tracker (Playwright)

Automates attendance from a WhatsApp group using Playwright/Chromium: detects sign-in/out, leave, late, and holidays with TypeScript rules (AI only for odd wording and report summaries). Electron desktop app with scheduled daily sync and Gmail PDF/XLSX reports for HR.

OpenClaw for Autonomous AI Influencer & Explainer Videos

Built an end-to-end pipeline that autonomously generates AI influencer and explainer video content. Used OpenAI's API to research topics and generate scripts, HeyGen to produce realistic AI avatar videos, and Playwright to automate website walkthroughs for explainer content.

Data Insight App (PostgreSQL & CSV) (MCP)

Created an app to query PostgreSQL and CSV data using natural language, generating automated insights and visualizations.

MongoDB MCP Server Chat App

Developed a chat app using MCP that allows natural language interaction with MongoDB for querying, CRUD operations, and data exploration.

Automated EU Files Database Update System

Designed an n8n-based workflow with AI agents to automate extraction, processing, and updating of EU files data into a database.

AI Voice-Based School Information Assistant (RAG System)

Built a full-stack AI voice assistant for Sunmarke School using Next.js and LangChain that processes user speech, retrieves relevant information from the school website via a Qdrant-powered vector database, and generates contextual responses using Gemini LLM. Implemented real-time speech-to-text, retrieval-augmented generation (RAG), and text-to-speech for an interactive multi-model response comparison interface. Designed with scalable architecture supporting pluggable LLM providers and cloud deployment readiness.

AI Receptionist System for US-based Plumbing Service

Built an using **Make.com** that handles missed calls and SMS conversations, automatically books appointments, notifies both clients and the business owner, manages follow-up drip messaging, and supports review collection and service feedback automation.

Customer Feedback Handler Agent

Built a Customer Feedback Handler Agent in n8n that processes customer feedback, identifies issues, routes them to the concerned department, and automatically sends status update emails to customers.

Florida Lottery Prediction

Developed a client project for Florida Lottery Prediction to forecast winning digit combinations for Pick3, Pick4, and Pick5. Implemented a retrainable model that updates daily using recent data to improve prediction accuracy.

Automatic Recipe generator from Food Images

Developed an Automatic Recipe Generator from food images using the SegFood103 dataset. Designed a model to detect ingredients from images and recommend multiple recipes with detailed preparation steps based on the detected ingredients.

Multi-Magnification Analysis in CLAM-Based Lung Cancer Classification Using MAE Features and MIL Model

Developed a multi-magnification analysis framework using CLAM and MAE for lung cancer subtype classification. Extracted patches at 5x, 10x, 20x, and 40x magnifications from TCGA whole slide images, enhanced features using masked autoencoders, and trained MIL models to distinguish between LUAD and LUSC

Breast Cancer Prediction

Utilized pre-trained CNN models (e.g., VGG16, ResNet50) and fine-tuned them on a mammography dataset to classify breast cancer images as malignant or benign. Achieved high accuracy by leveraging transfer learning and data augmentation techniques.