Umair Inayat

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OBJECTIVE

Software Engineer with expertise in Machine Learning, Deep Learning, and Large Language Model. Skilled in PyTorch, TensorFlow, and modern ML frameworks for building AI applications, mobile apps, and computer vision systems. Proven track record in competitive programming and research with top ML competition rankings.

EDUCATION

University of Management and Technology — **Lahore, Pakistan**
Bachelor of Science in Computer Science, GPA: 3.78 — *2022 – 2026*
- Merit Awards: Fall 2023(Dean Award)& Fall 2024 (Ractor Award)
- Coursework: Data Structures, ML/DL, Software Engineering, NLP, Database, OS

EXPERIENCE

Teaching Assistant — **Mar 2024 – Present**
University of Management and Technology — *Lahore, Pakistan*
- Assisted instructors in teaching OOP, DSA, Database, ML/DL,OS and Automata
- Graded assignments, conducted office hours, and provided comprehensive support to 100+ students
- Mentored students in complex programming concepts and guided project development

SKILLS

Languages: C++, Python, JavaScript, HTML, CSS, SQL
Frameworks/Libraries: PyTorch, TensorFlow, Keras, Hugging Face, Django, FastAPI, Flask, Langchain, Langgraph
ML/AI Tools: Deep Learning, NLP, Computer Vision, Data Science,Gen AI ,Model Quantization
Development Tools: Git, GitHub, VS Code, Jupyter, Google Colab, SQLite, SQL,
Soft Skills: Team Collaboration, Problem Solving, Research, Leadership, Communication, Project Management

PROJECTS

Multimodal AI Text Detection with Explainable AI | *Python, PyTorch, RoBERTa, XAI* — **2025**
- Developed XAI framework for AI-generated text detection achieving 98.4% binary and 86.8% 12-class accuracy
- Combined RoBERTa embeddings with 34-dimensional stylometric features using 5 fusion architectures
- Integrated LIME, SHAP, and Captum attribution methods for comprehensive explainability analysis

EmotiEase: Depression & Anxiety Mobile App | *Flutter, Python, FastAPI, LLaMA 2* — **2025**
- Developed Flutter mobile application for mental health management with personalized AI chatbot
- Fine-tuned LLaMA 2 on therapist-client interaction dataset and quantized for efficient VM deployment

Research: Mental Illness Detection from Reddit Posts | *Python, PyTorch, QLoRA, LLaMA 2* — **2025**
- Enhanced model accuracy from 85% to 93% using QLoRA fine-tuning technique on LLaMA 2 architecture

Object Detection for Satellite Imagery | *YOLO, Computer Vision, Python* — **2024**
- Implemented YOLO models (v3, v5, v8, v11) for object detection on NESA satellite imagery dataset
- Improved state-of-the-art performance by 3% through model optimization and dataset augmentation

Machine Translation: Transformer Implementation | *Python, PyTorch, Attention Mechanism* — **2024**
- Implemented Transformer architecture from scratch based on "Attention is All You Need" paper

DevSearch: Developer Profile Platform | *Django, SQLite, HTML, CSS* — **2023**
- Developed platform for developers to showcase projects and profiles with user authentication

AWARDS & ACHIEVEMENTS

TechnoVerse Comsat ML Competition (2025): 3rd Position - 66 tree species classification with 118k instances
SofTech ML Competition (2025): 4th Position - Hospital readmission prediction among 30 teams
Academic Excellence: Merit Awards Fall 2023 & Fall 2024, GPA: 3.78/4.0

CERTIFICATIONS

Machine Learning Specialization - Coursera (Andrew Ng) | Deep Learning Specialization - Coursera
Data Scientist in Python - DataCamp | MLOps Bootcamp with 10+ End-to-End ML Projects