

Umair Inayat

Software Engineer

Lahore, umairinayat975@gmail.com • [LinkedIn](#) • [Github](#) • [Kaggle](#) • 03342950400 • [Portfolio](#)

EDUCATION

UNIVERSITY OF MANAGEMENT AND TECHNOLOGY, LAHORE

2022-2026

- *Bachelor of Science in Computer Science* GPA: 3.78
- *Relevant Coursework: Data Structures, Database, Machine Learning, Deep Learning, Software Engineering, NLP*
- *Merit Awards: Awarded Fall 2023 and Fall 2024 (Reactor Award)*

CERTIFICATIONS

- **Machine Learning Specialization** by Coursera (Andrew Ng)
- **Deep Learning Specialization** by Coursera
- **Data Scientist** in python by Datacamp
- **MLOps Bootcamp** With 10+ End To End ML Projects

SKILL SETS

C++ • PYTHON • PYTORCH • TENSORFLOW • DEEP LEARNING • NATURAL LANGUAGE PROCESSING • COMPUTER VISION • DATA SCIENCE • MLFLOW • DOCKER • DJANGO

PROJECTS

EMOTIEASE: DEPRESSION AND ANXIETY MOBILE APP

- Developed a Flutter mobile application for managing depression and anxiety. Fine-tuned Llama 2 on a therapist-client interaction dataset to create a personalized chatbot. Quantized the fine-tuned model for efficient deployment on a virtual machine. Created a FastAPI backend to serve the model's API endpoints.

RESEARCH PAPER: DETECTING MENTAL ILLNESS FROM REDDIT POST:

- Enhanced model accuracy from 85% to 93% using the QLoRA fine-tuning technique on the LLaMA 2 architecture, surpassing previous research benchmarks.

Object Detection and Annotation using YOLO for Satellite Imagery

- Implemented and evaluated various YOLO models (v3, v5, v8, v11) for object detection on a satellite imagery dataset (NESA). Improved the state-of-the-art performance by 3% on the NESA dataset. Annotated images to create/augment the dataset.

DevSerach : Developer Profile Platform

- Developed a platform for developers to showcase their projects and profiles. Utilized Django, SQLite, and HTML to build the application

Machine Translation : Attention is All You Need Implementation

- Implemented the Transformer architecture from scratch, as described in the "Attention is All You Need" paper. Developed a machine translation model for English to German.

EXPERIENCE

Teaching Assistant | University of Management and Technology | 3/02/24 - Present

- Assisted instructors in teaching the following courses: Object-Oriented Programming (OOP), Data Structures and Algorithms (DSA), Database, Deep Learning, Machine Learning, Automata
- Graded assignments, held office hours, and provided support to students.

AWARD

TechnoVerse Cosmat ML Competition:

- Achieved 3rd position in a classification competition involving 66 tree species, working with a highly imbalanced dataset of 118,000 instances that included significant duplicate values.

SoftTech ML Competition:

- Secured 4th position among 30 teams in a hospital readmission prediction competition, working with an imbalanced dataset having an 80:20 class distribution.