

Muhammad Ahmad

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Lahore, Pakistan

Education

FAST - National University of Computer and Emerging Sciences, Lahore

Bachelor of Science in Computer Science

CGPA: 3.25

2021 – 2025

Experience

NETSOL Technologies, Lahore

AI/ML Intern

May 2024 – Jul 2024

- Developed a university chatbot using Retrieval-Augmented Generation (RAG) to respond to student queries.
- Created and deployed a CV rating system that evaluates CVs against job descriptions; proposed and delivered as an MVP to the HR department.
- Engineered a YOLO-based system to detect people and chairs for estimating vacant seats in large venues.

Projects

Advertisement Generation Model

Trained a custom diffusion model for text-to-image ad generation by training mmdit transformer

CV Shortlister – LLM-Based CV Rating System

Built a CV parsing and ranking tool based on job descriptions using LLMs.

Fast-NUCES QueryBot

Created a chatbot using RAG to provide instant answers to student queries.

GPT From Scratch

Developed a 405M-parameter GPT-style model in PyTorch. Pretrained on Simple English Wikipedia with Flash Attention, gradient accumulation, and mixed precision. Instruction-tuned using the Alpaca dataset.

Real-Time ECG Analysis

Trained a ResNet-based heart disease classifier. Captured real-time ECG data via custom ESP32 + AD8232 hardware. Used MQTT for communication and deployed the MQTT broker, model, and web server on Azure Cloud.

Other Projects:

Line Following and Obstacle Avoidance Robot, IoT-based Room Automation System

Skills

Languages: Python, C++, C

Libraries/Frameworks: PyTorch, TensorFlow, LlamaIndex, Langchain, OpenCV, scikit-learn

Web/DB Tech: HTML, CSS, JavaScript, SQL

Hardware/Other: Arduino, ESP32, ESP8266, Raspberry Pi, Sensors, Robotics, IoT