AI/ML Engineer

Waqas Naveed

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Motivated Computer Science student with a solid foundation in Artificial Intelligence, Machine Learning, NLP, Data Science, Data Engineering and Generative AI technologies. Eager to apply technical expertise to contibute to rapid prototyping and Proof of Concepts (PoCs) in Generative AI, leveraging Python and related frameworks. Seeking an opportunity to collaborate with industry professionals

SKILLS

Artificial Intelligence

Machine Learning (Regression, Classification, Clustering), Deep Learning (PyTorch, TensorFlow, Keras, FastAI), LLMs (Transformers, Fine-tuning, Retrieval-Augmented Generation, Prompt Engineering, NLP), Computer Vision, Hugging Face, OpenAI, Gemini, Scikit-Learn, model integration using Flask & FastAPI, MLOps (CI/CD pipelines, Docker, MLflow), version control with GitHub & Git Bash, cloud deployment on Azure & AWS

Data Science

Data Collection, Preprocessing, Feature Engineering, Exploratory Data Analysis, Model Training & Evaluation, Cross-Validation, Predictive Analytics, Web Scrapig Pandas, NumPy, Scikit-Learn, Matplotlib, Seaborn, TensorFlow, Keras, PyTorch, SQL, Power BI, Statistical Analysis

EDUCATION

BS Computer Science *September 2021 – June 2025 (Expected)*
FAST National University of Computer and Emerging Sciences

WORK EXPERIENCE

Artificial Intelligence Engineer

Freelancing and Code Agentic developer team

- Trained and fine-tuned AI and ML models to achieve high accuracy and optimal performance.
- Built Retrieval-Augmented Generation (RAG) systems using LangChain for enhanced query responses.
- Deployed scalable AI solutions on cloud platforms (AWS, GCP,AZURE).

PROJECTS

HealthGenics – Final Year Project *June 2024-2025*
• Developed an AI-powered fitness and rehabilitation app focusing on body position detection, workout plans, and injury recovery.
• Utilized MediaPipe for body position tracking, React Native for front-end, and Flask for backend model deployment.
• Integrated for user progress visualization and designed a premium category with online transaction features.

Automated Web Scraper & Email Outreach System – UK Tech Company *November 2024*
• Developed a dynamic web scraping tool to extract emails, phone numbers, and contact details from various websites.
• Utilized Python, Scrapy, Selenium, and BeautifulSoup to handle complex, JavaScript-rendered sites.
• Integrated an automated email-sending system using SMTP and organizational email services for targeted outreach.

Emergency Vehicle Detection System – Hull University Client *December 2023*
• Developed a deep learning model for detecting and classifying emergency vehicles using image data.
• Utilized TensorFlow and Keras to train a CNN-based model for real-time prediction.
• Improved accuracy and responsiveness to aid in automated traffic management and emergency response.

BLIP-2 Vision-Language Model Fine-Tuning for Image Captioning – Public Project *February 2025*
• Fine-tuned the BLIP-2 VLM to generate detailed captions and visual stories from image datasets.
• Used PyTorch and HuggingFace Transformers with custom prompt-tuning and decoding strategies.
• Improved caption quality by enhancing multi-modal understanding through data preprocessing and model refinement.

Vehicle Insurance Management System – Industry Project *Aprail 2025*
• Built and deployed a full-stack vehicle insurance system with policy creation, premium calculation, and claims handling.
• Integrated telematics data, fraud detection logic, and customer self-service features using Flask, Docker, and AWS EC2.
• Delivered scalable cloud-based deployment and CI/CD setup for seamless updates and industry-grade reliability.