Hamza Amin

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Address
Block X Street 2
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Pakistan

Objective	Highly motivated and results-oriented AI/ML Engineer seeking a challenging role where I can leverage my expertise to develop and deploy innovative and impactful AI solutions.

Education

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology (GIKI)   Topi, PK   2022 - 2026
Bachelors of Science in Artificial Intelligence
CGPA: 3.04/4.00

Work Experience

SayntAI   Karachi, Pakistan   Mar 2024 - Oct 2024
As a Data Scientist at SayntAI, I developed AI-powered educational application and data processing solutions, significantly improving user engagement, optimizing data pipelines, and enhancing data accessibility, while successfully transitioning to cost-effective open-source technologies.

Fiverr   Remote   Jan 20 - Sep 22
During the COVID-19 pandemic, I leveraged the Fiverr platform as a Level 2 Seller, providing graphic design services to over 100 satisfied clients. This experience significantly enhanced my international communication skills and provided valuable exposure to diverse client needs and expectations.

Academic Projects

Haazri Hub
Engineered a mobile attendance application for university use. Integrated YOLO for face recognition, Django for the backend server, and Flutter for the mobile app. This project significantly enhanced my skills in full stack mobile development and computer vision.

Covenant AI
Currently working on AI Lease Contract Analysis project at NETSOL Hackathon, utilizing Agentic RAG architecture. Developing features like lease contract comparison and custom dashboards for lessors and lessees using pure Python, with a unique selling point of integrating custom ground rules into a vector database.

MLOps with XAI and AWS Deployment
Developed end-to-end MLOps pipelines, utilizing GitHub Actions, Docker, and AWS EC2 container services. Implemented model deployment and monitoring for explainable AI (XAI) to ensure the model was deployable and understandable.

README Generator for GitHub Repositories
Fine-tuned a 1B parameter StarCoder LLM to generate high-quality README files based on repository content, streamlining documentation processes for developers. This resulted in an automated README process that saved an average of 2 hours of developer time per repository.

Toxic Comment Classifier
Developed a multi-class toxic comment classifier using LSTM and BERT, achieving an F1 score of 0.83 on a 159,000-comment dataset. This research led to improved model comparison techniques and was recognized in academic circles for effective model comparison.

HOT 'N SPICY Food Delivery App
Led a team of four to build a full-stack web application using Flask and SQLite3 with features like user authentication, order tracking, and in-app payments. This project helped me monitor the full development cycle and ensured a successful deployment during my internship.

LangChain Series
Developed a comprehensive AI assistant using LangChain, Hugging Face models, and APIs like Wikipedia, DuckDuckGo, and Tavily for real-time question answering and content retrieval. This enabled the system to answer complex queries and provide context-rich responses.

AI Canvas Virtual Drawing Tool
Implemented a real-time hand tracking tool using OpenCV and MediaPipe for virtual drawing with gesture controls. This enhanced the user experience through intuitive interactions and improved application engagement. This tool is very helpful for the teachers who teach their courses online.

Awards & Achievements
- Attended IEEE International ICET Conference at GIKI
- Machine learning and deep learning certifications by Andrew Ng
- Open Source LLMOps and Django full stack development certifications
- Event head at ACM GIKI Chapter
- Research paper on Malware detection in android-apk files using deep learning

Skills
- Machine Learning: TensorFlow, PyTorch, Hugging Face, LangChain, YOLO, MLOps
- Programming Languages: Python, C++, SQL
- Web Development: Flask, Django, Docker
- Databases: PostgreSQL, Firebase, SQLite3
- Cloud Technologies: Azure, AWS EC2
- Tools: Jira, Confluence, LaTex, Git, OpenCV, MediaPipe