Ahmad **Liaqat**

Artificial Intelligence Engineer · Data Science Expert

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"Don't watch the clock; do what it does. Keep going."

Summary

Result-oriented artificial intelligence engineer with more than 3 years of experience specializing in NLP, computer vision, and generative AI. Experienced in building scalable AI solutions, fine-tuning large language models, and deploying end-to-end pipelines with tools like TensorFlow, PyTorch, and Hugging Face. Recognized for innovative projects, including sketch-to-image conversion, text-to-audio generation, and chatbot optimization. Passionate about delivering impaction AI solutions that enhance efficiency and creativity.

Education

GIFT University

Gujranwala, Pakistan

Bachelor's of Science In Computer Science — *2019 - 2023*

- **Related Coursework:** Machine Learning, Artificial Intelligence, Natural Language Processing, Data Structures and Algorithms, Database Systems.
- First Position in Final Year Project, received funding from Ignite for project development

Work Experience

Devster Labs

Islamabad, Pakistan

Artificial Intelligence Engineer — *May. 2024 - Dec. 2024*

- Optimized audio processing models, achieving a 3% reduction in processing time.
- Enhanced user engagement by 8% through generative AI applications.
- Increased customer query resolution by 10% using Hugging Face, Vertex AI, and OpenAI-based chatbot solutions.
- Achieved a 2% increase in sound event detection accuracy.
- Implemented cross-functional AI solutions, reducing integration time by 30%.
- Implemented and Deployed Weapon Detection and Anomalies Detection system in real-world Environment, resulting in 40% decrease in violence activities.

GIFT University

Gujranwala, Pakistan

Research Assistant & Tensorflow Developer — *Feb. 2023 - May. 2024*

- Implemented and Achieved 80% accuracy in sketch-to-image synthesis, surpassing state-of-the-art benchmarks.
- Enhanced CNN-based recognition by 5%, contributing to research publications and conferences.
- Developed a deep learning model using CNNs to analyze satellite imagery, achieving 85% accuracy in identifying poverty-stricken regions, and aiding in resource allocation for underserved areas.
- Specialized in GANs for diverse image synthesis, implementing advanced architectures like Pix2Pix and CycleGAN and more for Image-to-Image Translation.

CodSoft

Kolkata, India

Machine Learning Intern - Remote — *Oct. 2023 - Nov. 2023*

- Improved captioning accuracy by 13% using CNN-RNN architecture with Attention mechanisms.
- Enhanced recommendation systems' click-through rates by 25% through collaborative filtering.
- Integrated machine learning models like ChatGPT, Dall-E, Gemini and others into real-world applications using Flask REST APIs for seamless web application interaction.

Publications

25th International Conference on Digital Image Computing: Techniques and Applications

Perth, Australia

Locally-Focused Face Representation for Sketch-to-Image Generation Using Noise-Induced Refinement — *2024*

- This paper introduces a novel approach for sketch-to-image generation, focusing on localized face representation with noise-induced refinement to enhance visual accuracy and realism

3rd International Conference on Energy, Power, Environment, Control and Computing

Pakistan

LOCALLY FOCUSED MULTI-LEVEL FEATURES-BASED FRAMEWORK FOR POVERTY ESTIMATION — *2024*

- This study proposes a novel multi-level feature extraction, fusion, and dual-attention mechanism framework for poverty estimation via satellite imagery.

Projects

Human Sketch-to-Face Conversion *2023*

- Tech used: Python, Pytorch, GANs, CNN, Autoencoders
- Developed a GAN-Autoencoder model to convert human sketches to realistic images with feature extraction techniques.

Sound Event Detection System *2024*

- Tech used: Python, TensorFlow, Keras, Librosa
- Built a deep learning-based sound event detection system with 7% improvement in accuracy and reduced latency by 2% in real-time detection.

Other Projects *2024*

- Tech used: Python, Sci-kit learn, Pandas, Numpy, PyTorch, CNN, RNN
- Developed and implemented a variety of machine learning models, including:
  - Image Segmentation using U-net, FCN-8 architecture
  - Image captioning with combined CNN-RNN architectures, with a 10% improvement in accuracy using attention mechanisms.
  - Recommendation systems for personalized content delivery, resulting in a 5% enhancement in recommendation accuracy.
  - Time-series forecasting for stock price prediction.
  - Transformer Models for Language Translation.

Skills & Interests

Programming Languages	Python, Latex, Java, C, C#
ML and AI Algorithms	Natural Language Processing (NLP), Computer Vision (CNNs), Generative Adversarial Networks (GANs)
Tools and Frameworks	TensorFlow, PyTorch, Flask, REST APIs, Git
Soft Skills	Problem Solving, Hardworking, Quick Learner
Methodologies	Scrum, Agile Methodology
Interests	Image Processing, AI Applications in Gaming, Audio Signal Processing, Machine Learning Research
Languages	English (Fluent), Urdu (Professional), Arabic(Beginner)
Hobbies	Video gaming, watching sports matches, Visiting Northern Areas, Cooking, and reading Books or Blogs

Certification's & Awards

2024	**TensorFlow Developer Professional Certificate**, by Laurence Moroney	*DeepLearning.AI*
2024	**Natural Language Processing Specialization**, by Younes Bensouda Mourri	*DeepLearning.AI*
2023	**2nd Runner Up**, *PAK-UK Academic Bridge and hosted by Comsats University*	*Pakistan*
2022	**Machine Learning Specialization**, by Prof. Andrew NG.	*Coursera*