

# Ahmad Liaquat

ARTIFICIAL INTELLIGENCE ENGINEER · DATA SCIENCE EXPERT

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“Every victory is a blessing; every failure is a lesson I own.”

## Summary

Result-oriented Artificial Intelligence Engineer with over 3 years of experience in building scalable AI solutions using TensorFlow, PyTorch, and Hugging Face. I specialize in NLP, computer vision, and generative AI and have a proven track record in innovative projects like sketch-to-image conversion, text-to-audio generation, and chatbot optimization. Proficient in Scikit-learn and cloud services like AWS and Google Cloud. Adept at optimizing performance and deploying AI solutions aligned with business goals.

## 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 - Nov. 2024

- Developed and deployed AI-driven chatbots using Hugging Face, OpenAI, and Google Cloud, increasing customer query resolution by 10%.
- Optimized audio processing models, achieving a 3% reduction in processing time.
- Enhanced user engagement by 8% through Retrieval Augmented Generation (RAG) applications integrated with AWS services.
- 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 - Present

- 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.
- Utilized Scikit-learn for data preprocessing, feature extraction, and model evaluation to enhance overall project performance.

## 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.

International Conference on Innovation in Artificial Intelligence and Internet of Things

LOCALLY FOCUSED MULTI-LEVEL FEATURES-BASED FRAMEWORK FOR POVERTY ESTIMATION

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

Jeddah, Saudi Arabia

Submitted for Publication 2025

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

SKETCH TO IMAGE SYNTHESIS: HARNESSING DEEP LEARNING TECHNIQUES FOR REALISTIC VISUAL TRANSFORMATION

- Proposed a deep learning solution to transform black-and-white face sketches into realistic color images, addressing challenges in suspect identification. Submitted this work for AI applications in law enforcement.

Pakistan

Accepted for Publication 2025

Projects

Conversational AI Chatbot

- Tech: Python, TensorFlow, Hugging Face, OpenAI
- Created a highly accurate chatbot using transformer-based models like GPT-3 and BERT.
- Improved response quality by incorporating A/B testing and iterative fine-tuning.

2022

Human Sketch-to-Face Conversion

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

2023

Sound Event Detection System

- 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.

2024

Other Projects

- 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.

2024

Skills & Interests

Programming Languages

ML and AI Algorithms

Tools and Frameworks

Cloud Platforms

Cloud Tools

Soft Skills

Methodologies

Interests

Languages

Hobbies

Python, Latex, Java, C, C#

Natural Language Processing (NLP), Computer Vision (CNNs), Generative Adversarial Networks (GANs)

TensorFlow, PyTorch, Flask, REST APIs, Git, Hugging Face, NLP Libraries (SpaCy, NLTK), Scikit-learn

Amazon Web Services (AWS), Google Cloud Platform (GCP)

Vertex AI, BigQueryML, Vertex AI Workbench, AutoML, Google Collab

Problem Solving, Hardworking, Quick Learner

Scrum, Agile Methodology

Image Processing, AI Applications in Gaming, Audio Signal Processing, Machine Learning Research

English (Fluent), Urdu (Professional), Arabic(Beginner)

Watching sports matches, Visiting Northern Areas, Cooking, and reading Books or Blogs

Licenses & Certifications

Ongoing

2025

2024

2024

2023

2022

Machine Learning on Google Cloud, by Google Cloud Skills Boost

TensorFlow: Advanced Techniques Specialization, by Laurence Moroney

TensorFlow Developer Professional Certificate, by Laurence Moroney

Natural Language Processing Specialization, by Younes Bensouda Mourri

2nd Runner Up: AI Driven Hackathon, PAK-UK Academic Bridge and hosted by Comsats University

Machine Learning Specialization, by Prof. Andrew NG.

Google Cloud

DeepLearning.AI

DeepLearning.AI

DeepLearning.AI

Pakistan

Coursera