

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 expertise in building scalable AI solutions using TensorFlow, PyTorch, and Hugging Face. Specialized in NLP, computer vision, and generative AI with a proven track record in innovative projects like sketch-to-image conversion, text-to-audio generation, and chatbot optimization. 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 and OpenAI, increasing customer query resolution by 10%.
- 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 - 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.

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

Jeddah, Saudi Arabia

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

Submitted for Publication 2025

• 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.

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

Pakistan

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

Submitted for Publication 2025

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

Projects

Conversational AI Chatbot

- Tech: Python, TensorFlow, Hugging Face, OpenAl
- 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.

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

Tools and Frameworks TensorFlow, PyTorch, Flask, REST APIs, Git, Hugging Face, NLP Libraries (SpaCy, NLTK)

Cloud Platforms AWS, GCP

Soft Skills Problem Solving, Hardworking, Quick Learner

Methodologies Scrum, Agile Methodology

Interests Image Processing, Al Applications in Gaming, Audio Signal Processing, Machine Learning Research

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

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

Certification's & Awards

Ongoing	IBM Data Science Professional Certificate, by IBM Skills Network Team	Coursera
2025	TensorFlow: Advanced Techniques Specialization, by Laurence Moroney	DeepLearning.Al
2024	TensorFlow Developer Professional Certificate, by Laurence Moroney	DeepLearning.Al
2024	Natural Language Processing Specialization, by Younes Bensouda Mourri	DeepLearning.Al
2023	2nd Runner Up: Al Driven Hackathon , <i>PAK-UK Academic Bridge and hosted by Comsats University</i>	Pakistan
2022	Machine Learning Specialization, by Prof. Andrew NG.	Coursera