

# Muhammad Allah Rakha AI/ML Engineer

I am a committed and highly proficient AI Researcher with 3+ years of valuable experience in developing cutting-edge artificial intelligence solutions. My expertise lies in the invention and execution of machine learning models, deep learning algorithms, and natural language processing systems to handle complicated business challenges. I am enthusiastic about employing my talents to assemble significant contributions to innovative projects and drive technological progress in the AI/ML field.

## Work Experience

### Generative AI Engineer @ Datafy Associates

#### DATAFY ASSOCIATES

08/2023 - Present

Lahore, Pakistan (Remote)

- Development of the Generative AI Transformer networks for realistic image synthesis resulted in a 50% improvement in image quality.
- Build a text-to-image synthesis system using conditional GANs with a GenAI strategy, enabling the generation of images from textual descriptions.
- Collaborated with research teams to explore the potential of Generative AI models in healthcare, art, and entertainment industries.
- Developed and fine-tuned language models (LLM) for creative text generation, such as question and answer, poetry, storytelling, and songwriting.

### Research Scientist | NVIDIA Developer Program @ Nvidia

#### NVIDIA

03/2023 - Present

Punjab, Pakistan (Remote)

- I use advanced technology from the NVIDIA Developer Program community to solve AI/DL challenges.
- I assist clients with research, corporate theses, and business projects. I've also developed innovative applications to improve efficiency and achieve objectives.
- Collaboration with like-minded individuals in the community has led to remarkable achievements and endless opportunities for personal and professional growth.
- I'm proficient in programming languages, frameworks, and APIs for successful projects. My main focus is on client satisfaction and upholding the organization's reputation. I quickly resolve any unexpected bugs or errors in client projects.

### Data Scientist | AI-ML Engineer @ Fiverr

#### FIVERR

02/2020 - 12/2022

Punjab, Pakistan (Remote)

- Manage important client projects, such as research, theses, final-year projects, and business initiatives. Employ diverse programming languages, frameworks, and APIs to achieve successful results.
- Manage client projects and promptly fix unexpected bugs. Offer solutions and guidance for user projects.
- Work with community members to share real-life knowledge and experiences, improving your expertise and problem-solving abilities.
- Create, evaluate, and implement AI features for over 10 significant projects in an international company worth a total of \$50,000.

## Education History

### National University of Computer and Emerging Sciences

#### Bachelor of Science in Computer Science - BSCS

Year of Graduation: 08/2019 - 06/2023

## Technical Skills

- Python, R, Julia
- Matplotlib, Seaborn
- Tableau, Power BI
- Java, Django
- NVIDIA cuDNN, CUDA
- Databricks, Snowflake
- OpenCV, SpaCy
- TensorFlow, Keras
- Hadoop, Spark, Kafka
- Gensim, NLTK
- PyTorch, Scikit Learn
- Docker, Kubernetes
- NumPy, Pandas
- Heroku, Git, GitHub
- MySQL, MongoDB
- OpenAI Gym
- Amazon AWS
- Microsoft Azure

## Research Field

### Research: Hyperspectral Satellite Image University in Chongqing, China

- Mixed Transpose Octave Transformer for Hyperspectral Image Denoising.
- Dual Cross Autorous Sperable Center Difference Fusion Attention Network for Hyperspectral Image Denoising
- Mixed Attention Mechanism and Features Extraction Spatial-Spectral Central Difference Convolutional Network for Hyperspectral Image Denoising.
- Hybrid Multi-Head Attention Mechanism with Central Difference Convolutional Network for Hyperspectral Image Classification.

## Conferences and Webinars

### NVIDIA Corporation

- NVIDIA GTC Conference 2023
- MDLI Ops Conference 2023

### Weights & Biases

- MLOps Fully Connected Conference 2023
- Training & Tuning Text-to-Speech with NVIDIA (NeMo) and W&B (Wandb)

### Dell Technologies

- Accelerate Transformation Anywhere with PowerEdge

## Certification

Machine Learning with Python (FreeCodeCamp)

## Professional Membership

Member, NVIDIA Developer Program Community

## Areas of Expertise

- Machine Learning
- Artificial Intelligence
- Deep Learning.
- Computer Vision.
- Natural Language Processing
- Hyperspectral Images (Research).

## Hobbies and Interests

- Community Service
- Creative Thinking
- Reading & Writing
- Time-Management
- Sports & Traveling
- Team Player

## Contact Info

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