Muhammad Allah Rakha

Research Data Scientist & AI-ML Engineer

Although I am Muhammad Allah Rakha and I am actively seeking a Data Scientist job in the (Machine or Deep learning) sectors, my primary interest lies in research and development due to my professional experiences in a well-planned and organized research field. I believe that my expertise in deep learning, machine learning, programming, and continuous learning makes me a strong candidate for a data scientist role. I have the ability to analyze complex data sets, build research and predictive models, and continuously refine my approach to deliver high-quality results.

Work Experience

NVIDIA

Research Scientist | NVIDIA Developer Program @ Nvidia
March 2023 to Present (2 months)
Through the utilization of NVIDIA's state-of-the-art technology, I have successfully addressed intricate challenges and introduced pioneering concepts within the domain of artificial intelligence, machine learning, and deep learning. My innovative approaches have led to the development of revolutionary applications that expedite processes and facilitate the attainment of objectives. As a member of this community, I have the opportunity to engage in collaborative efforts with individuals who possess a similar mindset. This shared space allows for the exchange of ideas and knowledge, ultimately leading to remarkable achievements that pave the way for the boundless potential for personal and professional growth and prosperity.

Tools and Technology
- Software, CUDA Toolkit, (Early Access, Hardware Grant) Programs

Training
- Deep Learning Insitute, Developer Videos & Webinars
- NIVIDA On-Demand, GPU Technology Conference (GTC)

Community
- Developer (Newsletter, Forums, and Events)

Technical Resources
- Research Papers, NVIDIA GPU Cloud [NGC] Catalog.

FIVERR

Research Data Scientist | AI-ML Engineer @ Fiverr
February 2020 to December 2022 (2 years, 11 months)

- Make the critical projects of client's requirements. E.g. Research, Thesis, FYP, and Company (Corporative/Business) Projects. By using different kinds of Programming Languages, Frameworks, APIs, etc.
- Maintenance of the organization's client's projects and solving unexpected bugs/errors in real-world problems.
- Providing and teaching correct way solutions to problems in user working projects.
- Distributed real-world knowledge/experiences with each other, and groom their own mind-thinking expertise.

Education History

Bachelor of Computer Science
Institution: FAST-NUCES University
Year of Graduation: 2019-2023

Intermediate in Computer Science
Institution: KIPS College Lahore
Year of Graduation: 2017-2019

Professional Field Experience

- Artificial Intelligence and Machine, Deep Learning.
- Natural Language Processing and Computer Vision.
- Probability, Statistics, and Data Structure.
- Database, Operating System, and Computer Networking.
- Hyperspectral Images (Research).
- Research Papers, Thesis, and FYP.

Research Field

Research: Hyperspectral Image
University in Chongqing, China

- 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.
- Dual Cross Autorous Sperable Center Difference Fusion Attention Network for Hyperspectral Image Denoising

Conferences and Webinars

NVIDIA Corporation
- NVIDIA GTC Conference 2023
- MDLI Ops Conference 2023
- Speech AI

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

Hobbies and Interests

- Artificial Intelligence
- Machine, Deep Learning
- Data Scientist & Big Data
- Programming & Coding
- Community Service
- Reading & Writing
- Sports & Traveling
- Detail with Attention

Contact Info

Google: aaaastark
Phone: +92 349 0175636 (PK)
Email: 4444stark@gamil.com
Github: github.com/aaaastark
Website: aaaastar.github.io

Technical Skills

- Python
- R/Julia
- Java
- Rust
- C/C++
- Java Script
- Shell Script
- Bash Script
- MySQL
- MongoDB
- Flask/Django
- Elm/Eel/Streamlit
- HTML, CSS
- Node, React JS
- Electron, Next JS
- Amazon AWS
- Microsoft Azure
- Git/GitHub
- Docker
- Kubernetes
- Hadoop
- Spark
- Kafka
- Tableau
- PowerBI

Projects Details

1. **Deep Residual Convolutional Neural Network for Hyperspectral Image Denoising.**
2. **Residual and Deep CNN-based Gradient with Skip Connection Network for Hyperspectral Image Denoising.**
3. **Realistic Satellite Dataset for Hyperspectral Image Denoising.**
4. **Spectral-Spatial Attention Mechanism Network for Hyperspectral Image Classification.**
5. **Hybrid Spatial-Spectral Network for Hyperspectral Image Classification.**
6. **A Fast 3-D CNN for Hyperspectral Image Classification.**
7. **Nasa Turbofan Engine Remaining Lifetime of the Classification with Adversarial Robustness Attacks (Evasion, Extraction, Poisoning, Inference), and State-of-arts Machine and Deep Learning Models.**
8. **Mental Illness Classification on Social Media Texts using Hybrid Deep Model (CNN, LSTM).**
9. **LeNet5-DQN Deep Reinforcement Learning Network of Intrusion Detection System for MQTT-IoT-IDS2020 (BinaryClass and MultiClass of Biflow, Uniflow, Packet Features) Enabled IoT Classification.**
10. **Attack Detection, Parameter Optimization, and Performance Analysis in Enterprise Networks (ML Networks) for Intrusion Detection System IDS.**
11. **Intrusion Detection Evaluation for AutoML-Implementation-for-Static-and-Dynamic-Data-Analytics using Dataset (CICIDS2017, IOTID20), and State-of-Arts Machine Learning and Deep Learning models to comparative analysis.**
12. **Hybrid Model of Intrusion Detection System (CNN, LSTM) for MQTT-IoT-IDS2020 (BinaryClass Biflow and Uniflow Features) Classification.**
13. **Artificial Neural Network (ANN) of Intrusion Detection System for MQTT-IoT-IDS2020 (BinaryClass and MultiClass of Biflow, Uniflow, Packet Features) Enabled IoT Classification.**
14. **Time Series Analysis: Accelerometer Sensors of Object Inclination and Vibration.**
15. **False Data Injection Attack (FDIA) with Long Sort Term Memory (LSTM) Model.**
16. **Graph Convolution Network GCN with Dimensional Redaction and Differential Algorithms.**
17. **Adversarial Network Attacks (PGD, pixel, FGSM) Noise on MNIST Images Dataset.**
18. **Data Analysis and Visualization (Apriori and Arules): Market Basket.**
19. **Web Scraping: LinkedIn | Zillow Real Estate Marketplace Company.**
20. **Hybrid Model Classification with CNN and LSTM for Video and Music Data (VMD) Dataset.**
21. **Netflix Data Analysis and Visualization | Fake News Detection.**
22. **Detecting Parkinson's Disease Analysis | World Happiness Report Classification.**
23. **Data Analysis: Framingham Heart Study (FHS) to Seminal Research defining Cardiovascular Disease (CVD) Risk.**
24. **NVIDIA CUDA GPU: NVIDIA CUDA optimization in Google CoLab.**
25. **Twitter Sentiment Analysis and Classification using State-of-Art ML Models.**
26. **Parallel and Distributed Computing: MPI AND OPENMP (LINUX).**
27. **Artificial Natural Network Perceptron (Forward Pass and Back Propagation).**
28. **Word Association and Mutual Information using Natural Language Processing.**
29. **Text Classification using Natural Language Processing.**
30. **Website Application: Human Resources Management System Dashboard.**