AKTHAR NAVEED V

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Kozhikode, Kerala, India

Summary

With 4 years of immersion in AI. I bring a robust blend of expertise in mathematics, Generative AI, and Engineering, supported by a strong theoretical background. My adept leadership, coupled with sharp problem-solving skills, complements my deep understanding of Artificial Intelligence. Furthermore, my proficiency in research enhances innovation, ensuring impactful solutions in dynamic AI landscapes. This unique skill set primes me for success in research-focused roles within the AI sphere.

Experience

RealNeural   calicut, Kerala/India
Machine Learning Engineer   MAR 2024 - Present

- Developed a Django web application integrated with a custom-trained Yolov8 model for real-time detection of road cracks, potholes, and missing lines. The application processes live feeds from a Basler camera and GPS coordinates from a connected GPS module. Utilized Jetson Nano for on-device computation, mounted on a car dashboard for in-field deployment. Enabled precise road condition monitoring and reporting through advanced computer vision and location tracking.

- Stable Video Diffusion: prepared training dataset of 3D pose, DW pose, and image frames from large Video datasets, integrated 3D Unet and Controlnet, and developed training code for multi-GPUs and multi-node GPUs cluster.trained models using a cluster of 4-A100 on a single machine as well as 2 machines of 2 H100 GPUs.

- LLM finetuning: Finetuned and trained Falcon-1B using custom code with proprietary data, and successfully deployed the model.

AICUBES   Muscat, Muscat/Oman
Machine Learning Engineer   DEC 2022 - FEB 2024

- Analyzed voting data from ministries over the past 6 years, extracting valuable insights. and visualized with different graphs such as bargraph,piegraphs and column stackedchart.
- Engineered a Real-time Election Analysis pipeline using Debezium Kafka Pyspark, providing live insights during the Oman Shura election On October 29, 2023.
- Implemented Transformer prediction models for 63 wilayat, employing 4xA10 GPUs to forecast next-hour polling percentages, gender distribution, and age interval distribution.
- During the election, data was streamed using Kafka from the database connected via Debezium and processed using Pyspark. The processed data underwent forecasting for the upcoming polling count, gender distribution, and age distribution.

Education

Cochin University of Science and Technology, Cochin, August 2018-march 2022
- B. Tech computer science Engineering
- Graduated with First Class with Distinction
- CGPA: 8.5/10

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Research Publication

- **ExoSGAN and ExoACGAN: Exoplanet Detection using Adversarial Training Algorithms**
- **https://www.irjet.net/archives/V9/i11/IRJET-V9I1103.pdf**
- *Machine learning techniques, including semi-supervised and auxiliary classifier generative adversarial networks (GANs), accurately detect exoplanets in K2 mission data. These models achieve perfect recall and precision, effectively reducing human effort and bias in classification. The semi-supervised GAN approach also addresses the challenge of creating labeled datasets for training.*

Certifications and Training

1. **deeplearning.ai(Coursera), online-deep learning specialization:** Sequence Models, Improving Deep Neural Networks: Hyperparameter tuning, Regularization, and Optimization, Neural Networks and Deep learning. Convolutional Neural Networks
2. **Udemy,online-Cutting Edge AI: Deep reinforcement learning in Python**: Apply deep learning to artificial intelligence and reinforcement learning using evolution strategies, A2C, DDPG
3. **Udemy,online-advanced AI: Deep reinforcement learning in Python:** The Complete Guide to Mastering Artificial Intelligence using Deep Learning and Neural Networks(Deep Q Learning, A3C)

Expertise

- **Machine Learning libraries**: Pandas, Numpy, Scipy, Matplotlib, Seaborn, Scikit-learn,TensorFlow, PyTorch, Keras.
- **Generative AI**: LLM, Langchain, Accelerate, Deepspeed, DDP, LangGraph, HuggingFace.
- **Data Engineering and Big Data**:Apache Spark (PySpark), Apache Kafka, Hadoop ,Apache Airflow.
- **SQL** : PostgreSQL, MySQL.
- **NoSQL** : Redis.
- **Vector databases:** Weaviate, Qdrant.
- **version control and CI/CD:** github , jenkins , docker
- **Frameworks:** Flask, Django.

Portfolio

- https://leetcode.com/u/akther/
- https://www.linkedin.com/in/akthar-naveed-921039201/
- https://www.upwork.com/freelancers/~0195463ae638b7275c/
- https://github.com/Aktharnvdv

Language

- **English** - IELTS-2022:- B2 (6.5)

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