

## AKTHAR NAVEED V

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Kozhikode, Kerala, India

### Summary

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With five years immersed in AI. I bring a robust blend of expertise in mathematics, Generative AI, and Engineering, complemented by sharp problem-solving skills and adept leadership. Alongside this, my knack for research amplifies 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

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#### AICUBES

Muscat, Muscat/Oman

aicubes, an innovative startup in Oman, is dedicated to advancing generative AI technologies, aiming to refine and optimize their capabilities. By catalyzing advancement and fostering innovation, Aicubes contributes to implementing generative AI solutions within the sultanate, driving progress in this dynamic field

Machine Learning Engineer (Founder and CEO)

DEC 2022 - FEB 2024

- Engineered a Real-time Election Analysis pipeline using Debezium Kafka Pyspark, providing live insights during the Oman Shural election.
- Implemented Transformer prediction models for 63 wilayat, employing 4xA10 GPUs to forecast next-hour polling percentages, gender distribution, and age interval distribution. Analyzed voting data from ministries over the past 6 years, extracting valuable insights.
- On October 29, 2023, 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.
- Stable Video Diffusion: Fine-tuned stable diffusion using Dream Booth, Dreamatist, Textual Inversion techniques, and LoRA. Worked on Latent diffusion to develop Stable Video diffusion. Integrated and trained Unet and Controlnet into a Stable video diffusion framework. trained using H100 GPU cluster equivalent to supercomputer using scaleway platform.
- RAG-Retrieval Augmented Generation: Developed RAG with tools such as Google search, Wikipedia search, calculator, etc. The agent was built using langchain framework. Integrated with Flask Celery and Redis and deployed into AWS EC2 Integrated Weaviate as Semantic Search database
- LLM finetuning: Finetuned and trained Falcon-1B using custom code with proprietary data, and successfully deployed the model.
- Whisper: Trained and deployed the Whisper model using the Libri-speech dataset, demonstrating proficiency in handling the entire model training and deployment lifecycle.

### Education

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**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

## Research Publication

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- ExoSGAN and ExoACGAN: Exoplanet Detection using Adversarial Training Algorithms
- <https://arxiv.org/abs/2207.09665>

## Certifications and Training

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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

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- Machine Learning Frameworks: PyTorch, Pandas, Numpy
- Generativeai: LLM, latent diffusion, ControlNet, Langchain
- Database: SQL, Redis, Weaviate, Qdrant
- cloud platforms: AWS, Heroku, GCP
- version control: git
- BigData frameworks: Pyspark, Kafka, Hadoop, zookeeper
- web frameworks: Flask, Django, celery
- Leadership, problem-solving, communication

## Portfolio

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- <https://www.linkedin.com/in/akthar-naveed-921039201/>
- <https://github.com/Aktharnvdlv>

## Language

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- English
- IELTS B2