

Skills

- Python
- Machine Learning & ML Pipelines
- Probability and Statistics
- Deep Learning & Computer Vision
- Data Annotation for Computer Vision
- Image Processing
- Data Analytics & SQL
- Transformers Pre-Training and Fine Tuning
- LLM Pre-Training and Fine Tuning
- PEFT (LoRA, QLoRA, Quantization)
- RAG techniques
- LLMs (LLaMA, Mistral, Gemma, Bert, GPT, Phi etc)
- Data Wrangling (Data Cleaning and Preprocessing)

Work Experience & Responsibilities

Data Scientist/AI Engineer – L&T Technology Services

AUG 2024 – Present

1. Handle and create models for various AI applications, including Face Recognition, Image Processing, Fire Detection, Crowd Detection, Congestion Detection, and other surveillance and law enforcement-related applications.
2. Work on improving the performance and accuracy of AI models, ensuring seamless integration with existing systems.
3. Coordinate with vendors to identify areas for improvement and implement changes to enhance overall system efficiency.
4. Collaborate with cross-functional teams to deploy AI models into production, ensuring successful integration and optimal performance.
5. Implement and integrate AI models into existing systems, ensuring smooth deployment and minimal downtime.
6. Continuously monitor and analyze system performance, identifying opportunities for improvement and implementing data-driven solutions.

Data Science Intern – TwiLearn Edtech Pvt. Ltd. – Remote

MAY 2023 – AUG 2023

1. Developed and trained machine learning models using Python and scikit-learn.
2. Analyzed large datasets and created interactive dashboards using Power BI.
3. Collected, cleaned, and preprocessed data from various sources.
4. Collaborated with teams to integrate ML solutions and generated weekly reports.
5. Automated report generation and optimized data processing cycles using Python scripts.

Other Experience (IOT):

IOT and Testing Engineer – CIMCON Software India Pvt. Ltd. – Ahmedabad

JAN 2019 – AUG 2024

Projects

Real-time Human Detection in Disaster (Computer Vision)

The project utilizes YOLO V8, a state-of-the-art object detection algorithm, to identify humans in images and videos captured in disaster scenarios for search, rescue operations & surveillance.

Auto Reviews Summarization and Sentiment Analysis

Auto reviews summarization and sentiment analysis projects streamline the decision-making process for consumers, provide valuable insights for manufacturers, and contribute to enhancing the overall quality of products and customer experience in the automotive industry.

RAG Pipeline Using Langchain

Project with LLM and RAG applications, I utilized cutting-edge tools and frameworks to enhance document retrieval and language modeling capabilities

Text Generation Using LLM (LLaMA-2 LLM Fine Tuning)

Fine-tuned LLaMA-2 LLM for customized text generation using Python, implementing Quantization, LoRA, and QLoRA for efficiency.

Text Summarization Using LLM (LLM Fine Tuning)

Developed text summarization model using fine-tuned 'facebook/bart-large-cnn' with AutoTokenizer and AutoModelForSeq2SeqLM in TensorFlow.

Next Word/Sentence Predictor Using LSTM (NLP)

Built next word/sentence predictor using LSTM in TensorFlow and Python, with Word2Vec embeddings for enhanced performance.

Emotion Analysis Based on Text Using Bert

Conducted emotion analysis on text using BERT Transformer with TensorFlow and Python, leveraging Hugging Face Transformers library.

Facial Expression Recognition - Deep Learning (Deep Learning & Computer Vision)

Developed real-time facial expression detection system using CNN and OpenCV, achieving accurate recognition of diverse emotions.

Human Activity Recognition by Smartphone (Machine Learning)

Implemented human activity recognition using smartphone data, achieving 97% model accuracy through feature engineering and correlation analysis.

Certification & Licenses

Machine Learning Specialization – DeepLearning.AI
Deep Learning Specialization – DeepLearning.AI
Generative AI (GenAI) with LLM – DeepLearning.AI
Prompt Engineering – DeepLearning.AI
Python – Google

Education

PGD (DATA SCIENCE) – Symbiosis Institute – Pune	2023-Present
Bachelor of Computer Applications – Jaipur National University – Jaipur	2019 – 2022
Diploma in Electronics and Communication –B.S.A College of Engineering– Mathura	2015 – 2018