Surender Kumar

Data Scientist

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PROFESSIONAL SUMMARY

Results-driven and detail-oriented Data Science and AI professional with hands-on experience in building and deploying intelligent systems using Machine Learning (ML), Deep Learning (DL), and Natural Language Processing (NLP). Proficient in designing, training, and fine-tuning models for classification, prediction, and language understanding tasks. Skilled in leveraging state-of-the-art Large Language Models (LLMs) like GPT, BERT, and other transformer-based architectures to develop advanced AI applications. Experienced in applying Generative AI techniques for tasks such as text generation, summarization, chatbot development, and RetrievalAugmented Generation (RAG) systems. Adept in using Python, TensorFlow, PyTorch, Keras, Scikit-learn, spaCy, and LangChain, with a strong understanding of vector databases and orchestration frameworks. Committed to continuous learning and delivering scalable AI-powered solutions in real-world environments.

SKILLS

- Python • Machine learning • Pandas • Numpy • Scikit-learn • Seaborn • Matplotlib • Deep learning • ANN • CNN • RNN • Tensorflow • Keras
- Natural Language Processing • NLTK • spaCy • Version Control System • Git • Generative AI • Prompt Engineering • RAG • LLM models - GPT-3.5
- GPT-4 • LLaMA • Mistral model • Gemini • LLM Orchestration Frameworks • Langchain • llamaindex • OpenAI

EXPERIENCE

NullClass

07/2025 - 07/2025

Data Science & Generative AI

- Successfully developed a Flask-based Text-to-Image Generator using Stable Diffusion v1.5 and Hugging Face’s diffusers, enabling real-time visual generation from natural language prompts.
- Strengthened core skills in Python, Machine Learning, Deep Learning, and Generative AI during internship training at NullClass, with hands-on implementation of LLM powered applications.
- Built AI pipelines adaptable to both CPU/GPU environments, emphasizing scalable deployment and model optimization. Gained practical experience integrating transformer-based models, REST APIs, and modern frontend-backend workflows for AI applications.

Learning Buds

03/2024 - 03/2024

Data Science

- Performed extensive data cleaning and preprocessing on real-world datasets, including handling missing values, outliers, duplicates, and data type inconsistencies using Pandas and NumPy. Applied feature engineering techniques such as encoding categorical variables, scaling, normalization, and dimensionality reduction to improve model performance.
- Developed and evaluated machine learning algorithms (Linear Regression, Decision Trees, Random Forests, SVM) using Scikit-learn to solve classification and regression problems. Conducted exploratory data analysis (EDA) using Matplotlib and Seaborn to uncover trends, correlations, and insights for data-driven decisionmaking.
- Implemented and compared model performance metrics such as accuracy, precision, recall, F1-score, and RMSE to select the best-performing models. Collaborated with team members via virtual tools to complete assigned tasks, present findings, and share best practices in data handling and modeling. Gained hands-on experience in following end-to-end data science workflows, from data acquisition to model deployment readiness.

PROJECTS

Medical Chat-Boat Generative AI 06/2025 - 07/2025

- Developed an intelligent, domain-specific medical chatbot using Generative AI and Retrieval-Augmented Generation (RAG) to provide accurate, context-aware responses to user queries about health, symptoms, diseases, and treatments. The system combines Large Language Models (LLMs) with vector-based semantic search to enhance answer relevance and reduce hallucinations. Medical documents were embedded and stored in a vector database (e.g., FAISS/Pinecone), enabling real-time document retrieval. The application was orchestrated using LangChain, integrating both the retriever and generator components into a seamless pipeline. The chatbot supports natural language queries, delivers reliable information, and ensures safety by avoiding speculative or harmful advice.
- LLM-powered Q&A: Answers user medical queries based on reliable and verified sources using OpenAI's LLM. RAG Architecture: Uses Retrieval-Augmented Generation to ground responses in domain-specific content. Vector Search Engine: Retrieves semantically relevant documents using vector embeddings. HealthcareFocused Responses: Trained and customized on medical datasets for domain-specific accuracy. Contextual Memory (optional): Maintains short-term chat memory for better multi-turn

Text To Image Generator 07/2025 - 07/2025

- Successfully developed a Flask-based Text-to-Image Generator using Stable Diffusion v1.5 and Hugging Face’s diffusers, enabling real-time visual generation from natural language prompts. Strengthened core skills in Python, Machine Learning, Deep Learning, and Generative AI during internship training at NullClass, with hands on implementation of LLM-powered applications.
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EDUCATION

M.C.A Computer Science 08/2024 - Present

Gurugram University

B.voc Software Development (IT) Computer Science 08/2021 - 05/2024

Delhi University

ACHIEVEMENTS & CERTIFICATIONS

Data Science & Gen. AI

Data Science Master