

Nithan B S

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Summary

Data Science and Machine Learning professional with strong analytical and problem-solving skills, specializing in NLP, deep learning, GenAI workflows, and RAG pipelines. Developed AI applications through academic and self-driven projects using Python, transformers, Docker, and modern ML tools, with a focus on practical, scalable solutions.

Technical Skills

- **Data Science & ML:** Python (Scikit-learn, Pandas), SQL, Power BI.
 - **AI & Deep Learning:** GenAI, Agentic AI, LLM, NLP, Neural Networks (PyTorch).
 - **Deployment & Tools:** Streamlit, FastAPI, Docker, AWS, Hugging Face Spaces.
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Key Projects

Legal Intelligence Assistant - Retrieval-Augmented Generation (RAG) Pipeline | [Live Demo](#)

Tools and Techniques: LangChain, ChromaDB, RAG Pipelines, RAGAS metrics

- Built a rapid, high-precision retrieval of specific clauses from extensive legal document corpora.
- Engineered an end-to-end RAG pipeline using vector embeddings, semantic search, and custom evaluation for hallucination detection.
- Attained a **0.77 RAGAS score**, including **>0.80 faithfulness** and **0.70+ answer/context relevance**.

Financial News Sentiment Prediction using Deep Learning & BERT | [Live Demo](#)

Tools and Techniques: BERT, PyTorch

- Built financial sentiment models using RNN, LSTM, GRU, and FinBERT with custom training pipelines.
- Benchmarked deep learning models against FinBERT for financial text classification.
- Achieved **macro F1-scores of 0.72 (GRU) and 0.84 (FinBERT)**, improving bullish and bearish sentiment classification.

Marketing Campaign Analysis & Text-to-SQL Agent | [Live Demo](#)

Tools and Techniques: Customer Segmentation, Feature Engineering, EDA, Groq API

- Solved data inconsistencies and created a mechanism for natural language retrieval of structured data.
 - Performed EDA, cleaning, and customer segmentation; integrated 70B Llama GenAI for chart generation.
 - Built dashboard with natural language querying for insights and recommendations.
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Professional Development

Independent Researcher & Policy Analyst | Chennai | 2020 – 2025

- Pursued full-time preparation for highly competitive national-level examinations, strengthening analytical reasoning, research, problem-solving, and structured decision-making skills.
- Successfully qualified UGC-NET (2021) and PhD Entrance Examinations in Environmental Sciences.

Intern | Regional Integrated Multi-Hazard Early Warning Systems (RIMES) | 2019

- Assisted with hazard modelling, geospatial analysis, and environmental data processing for disaster risk reduction.
 - Supported data-driven assessments for early warning systems and climate resilience planning.
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Education

Master Data Science (2026)

GUVI - HCL

Integrated M.Sc., Environmental Sciences (2015–2020)

Central University of Rajasthan

Certificates

- Generative AI Workshop: GUVI - HCL
 - Python - IITM Pravartak Certification
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