

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](#)

- 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**.
- *Tools and Techniques:* LangChain, ChromaDB, RAG Pipelines, RAGAS metrics.

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

- 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 a **0.72 macro F1-score with GRU** and **0.84 with FinBERT**, improving classification of bullish and bearish sentiment classes.
- *Tools and Techniques:* BERT, PyTorch.

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

- 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.
 - *Tools and Techniques:* Customer Segmentation, Feature Engineering, EDA, Groq API.
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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 | GUVI | 2026
 - Integrated M.Sc., Environmental Sciences | Central University of Rajasthan | 2015-2020
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Certificates

- **Generative AI Workshop** | Understanding RAG, AI Agents and Agentic AI | GUVI | 2026
 - **Python - IITM Pravartak Certification** | GUVI | 2026.
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