

Nischal Chandur

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SUMMARY

Machine Learning Engineer specializing in LLMs, RAG architectures, and geospatial data science. Experienced in designing and deploying production-grade ML systems, transforming cutting-edge NLP and ML research into trustworthy, real-world products. Proven ability to lead end-to-end pipelines, from model development and cloud deployment to cross-functional collaboration with domain experts and business stakeholders. Strong focus on interpretability, ethical AI, and secure, scalable systems.

EXPERIENCE

Data Science Graduate Intern, Ecolab – Naperville, IL, USA

06/2024 – 08/2024

- Developed a RAG assistant with Azure ML Studio, empowering store managers to query KPIs from structured data uploads.
- Engineered a multilingual LLM support tool, utilizing manuals and logs to provide contextual troubleshooting assistance for field agents.
- Presented solution demonstrations and architectural decisions to executives, collaborating with engineers to refine requirements.

Machine Learning Engineer, Reworked.ai – Miami, FL, USA

04/2024 – 05/2024

- Optimized customer segmentation and targeting strategies by integrating geospatial features into the ML pipeline.
- Created a Bayesian ensemble model for predicting solar panel adoption likelihood, thus improving customer acquisition and outreach.
- Presented data-driven recommendations and strategic insights to leadership, effectively communicating value propositions.

Data Scientist, Latlong – Bengaluru, KA, India

09/2022 – 06/2023

- Spearheaded the creation of a multilingual OCR-NLP pipeline, extracting structured data from government documents to provide regional demographic analytics for clients.
- Developed geospatial risk models for NBFCs, integrating behavioral and location-based features into credit scoring to evaluate borrower reliability.
- Provided spatial analytics to a prominent automotive client, linking product performance and sales trends with demographic and location data.
- Communicated findings and deployment strategies directly to product heads and senior business stakeholders.

PROJECTS

Lorekeeper – RAG-based Q&A System, University of Maryland

08/2024 – 12/2024

- Built a Llama 3.2:1b RAG system with LangChain and FAISS for real-time, interpretable Q&A on The Lord of the Rings corpora.
- Developed a data pipeline that intelligently chunks complex texts by removing non-informative sections before embedding, also performing PDF parsing and Exploratory Data Analysis (EDA) to understand content.
- Implemented an interactive frontend, enhancing transparency by displaying retrieved chunks with LLM responses.
github.com/nchandur/lorekeeper

NBA Game Outcome Predictor & Analytics Dashboard, University of Maryland

08/2023 – 12/2024

- Built an end-to-end ML pipeline for predicting NBA game outcomes using ensemble models trained on 40+ years of historical data.
- Led team efforts in model design, REST API integration, and dashboard development using Flask.
- Focused on explainability and usability by surfacing key player metrics, model confidence intervals, and interactive visualizations.
github.com/nchandur/NBA-prediction-model

EDUCATION

University of Maryland, College Park, MD, United States

08/2023 – 05/2025

Master of Science in Data Science

GPA: 3.9

Coursework: Natural Language Processing, Computer Vision, Big Data Systems, Algorithms for Data Science, Cloud Computing

SKILLS

Python, R, C/C++, Go, Node.js, Bash, PyTorch, Scikit-learn, Keras, Sentence Transformers, Large Language Models, Prompt Engineering, RAG Architectures, ChromaDB, Pinecone, Weaviate, Neo4j, Exploratory Data Analysis, Feature Engineering, Statistical Testing, Time Series Analysis, Data Cleaning, Data Modeling, ETL/ELT, Spark, Hadoop, Kafka, Airflow, RabbitMQ, Dask, Snowflake, PostgreSQL, MongoDB, Redis, Microsoft Azure Databricks, Azure ML Studio, Amazon Web Services (AWS), Docker, Git, REST APIs, Bayesian Inference, Optical Character Recognition, Flask, Django, FastAPI