Nischal Chandur

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SUMMARY

Machine Learning Engineer with 2+ years of experience designing and deploying production-grade ML systems, with specialization in LLMs, RAG architectures, and geospatial data science. Skilled in transforming cutting-edge NLP and ML research into real-world, trustworthy 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**

- Built a RAG assistant using Azure AI Studio to enable store managers to query KPIs from structured uploads (e.g., Excel).
- Designed a multilingual LLM support tool using manuals and logs to help field agents troubleshoot contextually.
- Presented solution demos and architectural decisions to executives; worked with engineers to refine requirements.
- Created secure NLP interfaces for natural language interaction over mixed-format data.

Machine Learning Engineer, Reworked.ai – Miami, FL, USA **04/2024 – 05/2024**

- Integrated geospatial features into the ML pipeline, enhancing the targeting strategy and improving customer segmentation.
- Developed a Bayesian ensemble model to predict solar panel adoption likelihood, contributing to smarter customer acquisition and outreach strategies.
- Communicated value propositions to leadership through strategic insights and data-driven recommendations.

Data Scientist, Latlong – Bengaluru, KA, India **09/2022 – 06/2023**

- Led development of a multilingual OCR-NLP pipeline for structured data extraction from public government documents, enabling regional demographic analytics for clients.
- Engineered geospatial risk models for NBFCs to assess borrower reliability by fusing behavioral and location-derived features into credit scoring.
- Delivered spatial analytics to a major automotive client, correlating product performance and sales patterns with demographic and location data.
- Presented findings and deployment options directly to product heads and senior business stakeholders.

PROJECTS

Lorekeeper – RAG-based Q&A System, University of Maryland **08/2024 – 12/2024**

- Developed a production-style Retrieval-Augmented Generation (RAG) system using Llama 3.2:1b, LangChain, and FAISS, enabling interpretable, real-time question answering over book corpora.
- Designed chunking, embedding, and search modules with modularity and scalability in mind.
- Implemented a front-end with source traceability and explanation features to enhance trust and transparency in LLM outputs. 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

Large Language Models, ChromaDB, FAISS, Sentence Transformers, Pinecone, Weaviate, Neo4j, OCR, Prompt Engineering, PyTorch, TensorFlow, Scikit-learn, Keras, Bayesian Inference, Ensemble Learning, Python, R, C/C++, Go, JavaScript, Bash, Azure ML Studio, Amazon Web Services, Docker, CI/CD, Git, Airflow, Kafka, Spark, Hadoop, Snowflake, BigQuery, Dask, ETL/ELT, Data Warehousing, Parquet, Data Modeling, PostgreSQL, MongoDB, Redis, NumPy, Pandas, Matplotlib, Seaborn, Plotly, Data Cleaning, Feature Engineering, Exploratory Data Analysis, Statistical Testing, Time Series Analysis, Flask, Streamlit, REST APIs