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 using Azure ML Studio, enabling store managers to query KPIs from structured data.
- Engineered a multilingual LLM support tool, leveraging manuals and logs for contextual troubleshooting by 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 through integration of geospatial features into ML pipelines.
- Developed a Bayesian ensemble model to predict solar panel adoption likelihood, enhancing 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 multilingual OCR-NLP pipeline development, extracting structured data from government documents for regional demographic analytics.
- Developed geospatial risk models for NBFCs, integrating behavioral and location-based features into credit scoring to assess 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 using LangChain and FAISS for real-time, interpretable Q&A on The Lord of the Rings corpora.
- Developed a data pipeline for intelligent text chunking, removing non-informative sections prior to embedding, and performed PDF parsing and EDA.
- Implemented an interactive frontend, enhancing transparency by displaying retrieved chunks alongside 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 to predict NBA game outcomes using ensemble models trained on 40+ years of historical data. (Slightly more direct)
- Led team efforts in model design, REST API integration, and Flask-based dashboard development.
- Enhanced 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