

# Nischal Chandur

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🌐 [nchandur.github.io/portfolio](https://nchandur.github.io/portfolio) | 💬 [linkedin.com/in/nchandur](https://linkedin.com/in/nchandur) | 🌐 [github.com/nchandur](https://github.com/nchandur)

## Professional Experience

**Cloud Engineer**, Fidelity Investments – Jersey City, NJ, USA

Sep 2025 - Present

- Design and maintain Kubernetes clusters on AWS and Azure as part of a core platform engineering team, enabling internal teams to securely build and deploy applications at scale.
- Develop and support Kubernetes controllers to enforce organizational security and compliance standards, while providing hands-on troubleshooting and platform support to application teams.

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

Jun 2024 – Aug 2024

- Developed and implemented a multilingual RAG pipeline for assisting global field agents in diagnosing and resolving machine malfunctions, offering step-by-step guidance and product recommendations based on historical logs and training manuals.
- Established an ML model validation framework and synthetic data generator to enhance the reliability of predictive maintenance systems by balancing datasets and improving accuracy in predicting rare anomalous events without depending heavily on infrequent real-world failures.
- Communicated project vision and outcomes to directors and executive leaders, facilitating alignment across different teams and supporting well-informed decision-making.

**Data Scientist**, Latlong (ONZE Technologies Pvt. Ltd.) – Bengaluru, KA, India

Sep 2022 – Jun 2023

- Led a team in developing data extraction and ML pipelines, including a multilingual OCR-NLP pipeline for structured demographic data extraction and geospatial database augmentation.
- Developed and deployed geospatial risk models for an NBFC, integrating location data to predict loan repayment and visualize regional defaulting rates for refined strategies.
- Delivered advanced spatial analytics and strategic insights to an automotive client, optimizing sales and marketing through analysis of geospatial and demographic data. Presented findings to executives for decision-making support.

## Academic Projects

**GoReads! – Scalable Content- Based Book Recommendation System**

May 2025 - July 2025

- Built a Go-powered book recommendation system, featuring a data pipeline that gathers book details, stores them in MongoDB, creates Ollama API vector embeddings, and loads them into Qdrant for semantic search.
- Built a Gin web application in Go with REST API endpoints for health checks, data and author retrieval, and various recommendation functionalities (by book, author, or genre).
- Containerized the full system, including Qdrant and the Go web application, using Docker Compose for streamlined deployment and isolated service management. [github.com/nchandur/go-reads](https://github.com/nchandur/go-reads)

**Lorekeeper – RAG-based Q&A System**

Aug 2024 - Dec 2024

- Developed an end-to-end RAG system using Llama3.2:1b, LangChain, and FAISS for real-time, interpretable Q&A on The Lord of the Rings literary corpora.
- Engineered a data pipeline involving intelligent PDF parsing, content-based text chunking, and optimal vector embedding selection to build the knowledge base.
- Implemented an interactive Streamlit frontend that enhances transparency by displaying retrieved source chunks alongside LLM responses, ensuring interpretability. [github.com/nchandur/lorekeeper](https://github.com/nchandur/lorekeeper)

## Education

**University of Maryland, College Park, MD, USA**

Aug 2023 – May 2025

*Master of Science in Data Science*

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

## Technical Skills

**Programming Languages:** Python, R, C/C++, Go, Bash

**Machine Learning & AI:** Scikit-learn, Sentence Transformers, Large Language Models, RAG Architectures, Exploratory Data Analysis, Feature Engineering, Statistical Testing, Bayesian Inference, Time Series Analysis, Data Modeling

**Data Management & Databases:** PostgreSQL, MongoDB, Redis, ChromaDB, Neo4j, Data Cleaning, ETL/ELT

**Big Data & Distributed Systems:** Spark, Hadoop, Kafka, Airflow, RabbitMQ, Dask, Snowflake

**Cloud Platforms & DevOps:** Microsoft Azure, Amazon Web Services (AWS), Docker, Kubernetes, Jenkins, Git, REST APIs