




# ADITHYA GIRIDHARAN

Data Scientist & GenAI Engineer

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 <https://medium.com/@AdithyaGiridharan>  <https://github.com/lamAGP>

 <https://www.kaggle.com/adithyagiri>

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## PROFESSIONAL PROFILE

Passionate Data Scientist and GenAI Engineer with extensive expertise in RAG/GraphRAG systems, AWS cloud technologies, and LLM-based solutions. Mathematics aficionado with a first-principles learning approach, specializing in intelligent document processing, knowledge graphs, and agentic workflows. Proven track record in building end-to-end ML/AI systems from research to production deployment.

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## WORK EXPERIENCE

### GenAI Engineer

July 2024 - Present

Karini AI

- Led design and development of Digital HR Assistant powered by GraphRAG using Neo4j and Neptune
- Implemented end-to-end RAG/GraphRAG pipeline: OCR → chunking → embedding → OpenSearch indexing
- Built query rewriting and reranking systems using Cohere models for enhanced retrieval accuracy
- Developed LLM-based metadata extraction and batch ingestion systems for graph databases
- Created LangGraph agentic workflows (Text2SQL agents, RAG agents) for complex document processing
- Processed high-volume legal documents, manufacturing specs, and purchase orders using intelligent document processing
- Worked with multiple LLMs/VLMs from Bedrock (Claude 3.5, 3.5 v2, Haiku, 3.7 Sonnet) and OpenAI

### Data Scientist

August 2023 - June 2024

Mercedes Benz Research and Development India Pvt Ltd

- Smart Product Data Management (PDM) using GraphRAG for automotive components
- Wiper Health Diagnostics using Computer Vision and YOLO models
- Change management cost prediction using machine learning algorithms
- Mercedes Benz Car Recommendation System with advanced ML techniques
- Explored 3D Deep Learning for engineering optimization problems
- Model conversion to ONNX format for production deployment

### Decision Sciences Intern

June 2022 - November 2022

HSBC WCR Analytics, Bengaluru

- Credit risk analytics using machine learning for insurance data
- RWA impact analysis and climate financing review
- Sustainability goals analysis for banking operations

TECHNICAL EXPERTISE

<b>GenAI &amp; LLMs</b> RAG/GraphRAG, Vision RAG, LangChain, LangGraph, Prompt Engineering, Fine-tuning (Unsloth), Agentic Workflows, Text2SQL Agents, Ollama Models	<b>AWS Cloud Services</b> S3, EC2, Bedrock, SageMaker AI, Lambda, IAM, Neptune, ECR, OpenSearch, Textract, RDS	<b>ML/DL Frameworks</b> PyTorch, TensorFlow, Scikit-learn, YOLO, ONNX, Ray (Hyperparameter Tuning), Computer Vision
<b>Programming &amp; Tools</b> Python, FastAPI, Streamlit, REST APIs, Git, Docker, Jupyter, MATLAB	<b>Data &amp; Databases</b> MongoDB, PostgreSQL, Neo4j, Neptune, OpenSearch, Pandas, NumPy	<b>Specialized Skills</b> Knowledge Graphs, Document Processing, OCR, Embedding Models, Query Rewriting, Reranking (Cohere), Batch Processing

ADDITIONAL ACHIEVEMENTS

- **Interview Expertise:** Conducted 20+ technical interviews for GenAI Engineer positions
- **Kaggle Competitions:** Active participant in various machine learning competitions
- **Prompt Engineering:** Expert in advanced techniques including Chain-of-Thought, Few-Shot, Zero-Shot, and Self-Consistency prompting
- **Knowledge Graph Enthusiast:** Built multiple production use cases in knowledge graph domain
- **Technical Writing:** Regular contributor on Medium with articles on data science and AI

EDUCATION

**MTech - Data Science and Analytics (CGPA: 8.88/10.0)**  
Indian Institute of Information Technology, Prayagraj | 2021-2023

**Bachelor of Engineering - Instrumentation and Control Engineering (CGPA: 9.02/10.0)**  
Sri Sairam Engineering College, Anna University | 2016-2020

LANGUAGES

**Tamil:** Fluent  
**Hindi:** Fluent  
**English:** Fluent  
**German:** Intermediate  
**Marathi:** Basic Understanding