

THEJESH MALLIDI

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EDUCATION

Michigan State University, USA	08/2023 - 04/2025
Master of Science in Data Science	GPA: 3.95/4.0
Madanapalle Institute of Technology & Science, India	06/2017- 07/2021
Bachelor of Technology in Computer Science	GPA: 9.23/10.0

EXPERIENCE

Quantiphi Analytics	Irving, TX, USA
Machine Learning Engineer	06/2025 - Present
<ul style="list-style-type: none">Engineered an LLM-driven document ingestion pipeline for a leading telecom company processing 2M+ contract documents, extracting unstructured legal text into structured Neo4j graph format while preserving full document hierarchy.Implemented Agentic Contract Assist chatbot (GraphRAG) over the Neo4j graph + document store, improving query relevance by ~45% and reducing retrieval latency from seconds to sub-second responses.Developed and deployed CI/CD workflows on Red Hat OpenShift and GCP Cloud Run, enabling zero-downtime updates and Integrated BigQuery and GCS for scalable contract metadata storage.	
Michigan State University	East Lansing, MI, USA
Graduate Research Assistant - Applied AI	01/2024 – 05/2025
<ul style="list-style-type: none">Pretrained domain-adapted BERT (MLM) with domain-aware masking (boosted mask probability for curated terminology) on 1M abstracts, delivering +15% average accuracy on downstream tasks.Built a domain-specific knowledge graph with over 2 million entities and 1.4 million relationships to accelerate hypothesis generation in plant science, leveraging Named Entity Recognition (NER) and Relation Extraction.Fine-tuned LLMs, including BERT and LLaMA variants and created a custom BERT-based multi-relation extraction model for information extraction, achieving 94% accuracy in entity extraction and 84% in relation identification.Developed a conversational research assistant with GraphRAG + agentic workflows (LangGraph) to reason over the KG and literature.Led large-scale topic analysis of 700k evolutionary biology research abstracts, uncovering temporal trends, research shifts, and literature gaps to inform future studies; leveraged BERT-based topic modeling and Agentic AI to extract ~150 high-quality topics.	
Quantiphi Analytics	Bangalore, India
Machine Learning Engineer	05/2021 - 07/2023
<ul style="list-style-type: none">Automated document processing pipelines for Banking, Financial Services, and Insurance (BFSI) workflows using computer vision and NLP-based models, which reduced manual review time by 75% and achieved 90% data extraction accuracy.Delivered 10+ Proof of Concepts (PoCs) on document classification & extraction, object detection, image classification, and semantic segmentation in collaboration with cross-functional teams of frontend developers and business stakeholders.Developed insurance-focused predictive models for risk assessment and claim outcome prediction using Logistic Regression, Decision Trees, Bagging, Random Forest, and Gradient Boosting Machines (GBM).Built and optimized real-time inference pipelines for Nvidia edge devices using DeepStream with custom C++ plugins, achieving 27 FPS for latency-sensitive applications.Orchestrated the deployment of 20+ machine learning models into production environments, leveraging CI/CD pipelines across AWS SageMaker, GCP Vertex AI, and Kubernetes, decreasing model deployment time by 30%.	

SKILLS

- Core Expertise:** Data Science, Machine Learning, Deep Learning, Predictive Modeling, Natural Language Processing (NLP), Computer Vision, Large Language Models (LLMs), Generative AI & Agentic AI, RAG, Graph ML, MultiModal AI, LLM Orchestration
- Programming Languages:** Python, R, C++, C, Bash
- AI/ML Frameworks & Libraries:** PyTorch, TensorFlow, TensorRT, ONNX, LangGraph, LangChain, LlamaIndex, AutoGen, Vector databases, Hugging Face Transformers, OpenCV, NumPy, Pandas
- Big Data & Streaming:** Hadoop Spark, Apache Kafka, Apache Beam
- Databases:** MySQL, PostgreSQL, Neo4j Graph DB, Elastic Search
- Cloud & MLOps Tools:** GCP, AWS, Heroku, Docker, Git, Flask, FastAPI, CI/CD Pipelines, Jenkins, MLFlow, KubeFlow