

Laxmi Sai Maneesh Reddy Jupalle

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SUMMARY

Computer Science graduate student at the University of Illinois at Chicago with 5+ years of experience in distributed systems, full-stack development, and enterprise software support. Hands-on experience building GenAI systems including RAG pipelines, LLM-driven applications, and vector-database-backed retrieval workflows. Strong background in debugging production systems, working across APIs and cloud platforms, and designing scalable, distributed architectures.

EDUCATION

University of Illinois at Chicago (UIC) <i>Master of Science in Computer Science</i> (GPA: 3.80)	Aug 2024 – May 2026 Chicago, IL
Jain (Deemed to be University) <i>B.Tech in Computer Science and Technology in Artificial Intelligence</i> (GPA: 3.72)	Jul 2018 – Jul 2022 Bengaluru, KA

Coursework: Machine Learning, Deep Learning, NLP, HCI, Data Structures, DSA, Distributed Systems, DBMS, Data Science, AI

RESEARCH EXPERIENCE

AI-Driven Academic Research Assistant <i>Independent Research Project – University of Illinois at Chicago</i>	Dec 2024 – Jan 2025
• Investigated multi-LLM architectures for automated academic literature analysis, designing a system capable of extractive and abstractive summarization, citation-aware retrieval, and contextual question answering over research corpora.	

• Implemented and evaluated a full-stack research prototype (React, TypeScript, Node.js, Supabase) with JWT-based authentication and row-level security, enabling real-time iterative exploration of uploaded papers through conversational AI interfaces.

WORK EXPERIENCE

University of Illinois at Chicago <i>Graduate Assistant – GenAI Team</i>	Chicago, IL Jan 2026 – Present
• Architecting an end-to-end RAG-based clinical AI system using Python, Azure AI Foundry, and open-source LLMs (LLaMA, Mistral) with vector-database retrieval to automate medical justification reports for assistive technology equipment.	

• **Developing** secure, HIPAA-compliant data workflows to process, anonymize, and validate patient records from protected file servers, grounding AI-generated clinical documentation in verified inventory and patient datasets.

VMware by Broadcom <i>Technical Support Engineer, Workspace ONE</i>	Bengaluru, KA Aug 2022 – Jul 2024
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• **Resolved** 250+ production-impacting cases monthly involving REST APIs, certificates, XML payloads, and profile-based configurations across Apple–VMware MDM integrations, maintaining strict SLA and uptime requirements.

• **Performed** deep log aggregation and configuration audits to isolate failures in distributed enterprise environments, reducing mean time to resolution across P1/P2 severity incidents.

• **Authored** reproducible Jira cases with detailed logs and environment metadata, streamlining handoff to engineering teams and reducing escalation cycles by 40%.

• **Created** comprehensive knowledge base articles and internal runbooks for recurring enterprise issues, enabling faster onboarding of new engineers and reducing repeat escalation volume across the team.

TECHNICAL SKILLS

Programming Languages : C++, Python, Java, JavaScript, TypeScript, Rust, SQL

Frameworks & Libraries : React, Django, TensorFlow, PyTorch, Scikit-Learn, LangChain, LangGraph, Hugging Face

AI & Data : RAG, Generative AI, Data Analysis, PowerBI, Tableau

Cloud & DevOps : AWS, Azure, Docker, Jenkins, Git, Linux

Languages : English, Telugu, Kannada, Hindi, Japanese

PROJECTS

Golden Bridge: Ambulance Pre-Arrival System (<i>1st Place, Microsoft-Sponsored Hack with Chicago</i>)	Dec 2025
• Architected a multi-agent orchestration system using LangChain and GPT-4 for intelligent triage automation with coordinated diagnostic, severity scoring, and treatment agents.	

• **Engineered** real-time streaming using Pathway, Kafka, FastAPI, and WebSockets for sub-second latency EMS data transmission, deployed on Azure using Docker.

Insurance Document Intelligence Platform	Jan 2025 – May 2025
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• **Built** a web-based LLM-powered document analysis system using GPT-Nano/Gemini Flash APIs with vector and graph search (Qdrant, Neo4j) to extract, compare, and simplify insurance documents.

• **Designed** a scalable modular architecture with Extract, Query, Analyze, and Compare pipelines to enable structured decision-making through integrated LLM workflows.

PUBLICATIONS

Diabetic Retinopathy Detection using ML	Jan 2022 – Jun 2022
• Built a CNN-based diabetic retinopathy detection system; received International Best Researcher recognition.	

• www.ijariit.com/manuscript/diabetic-retinopathy-detection-using-machine-learning/