

Nagur Shareef Shaik

404-203-9276 | shaiknagurshareef6@gmail.com | linkedin.com/in/nagur-shareef-shaik | github.com/ShaiKNagurShareef

SUMMARY

Machine Learning Engineer with 5+ years in engineering and research, specializing in multi-modal LLMs, NLP, and Agentic AI systems. Author of 23 research publications on Deep Learning Applications with a proven record of deploying scalable microservices and AI solutions. Expert in accelerating the SDLC with AI and building forecasting and other domain-specific tools to deliver faster time-to-market and measurable business impact.

EDUCATION

Georgia State University <i>Doctor of Philosophy in Computer Science GPA: 4.21/4.30</i>	Atlanta, GA Aug 2023 – Aug 2026
Vignan's Foundation for Science, Technology & Research University <i>Bachelors of Technology (Honours) in Computer Science & Engineering GPA 3.92/4.0</i>	Guntur, AP Jun. 2016 – May 2020

EXPERIENCE

Georgia State University <i>Graduate Research Assistant TReNDS Center</i>	Aug 2025 – Present Atlanta, GA
<ul style="list-style-type: none">Designed a longitudinal multi-modal report generation system that unifies temporal-modality factorization with latent diffusion and MoE fusion, delivering sharper temporal insights and stronger diagnostic reliability.Developed a probabilistic multi-modal framework for medical report generation capable of handling missing modalities, leveraging structured latent representations to improve diagnostic accuracy and robustness.	

UST Global Inc. <i>Associate III, Data Science GenAI</i>	July 2024 – Aug 2025 (Remote) Aliso Viejo, CA
<ul style="list-style-type: none">Architected Data Map Co-Pilot, an Agentic AI tool built with Google Agentspace, to perform data profiling and map to a BigQuery data warehouse on GCP, saving 2 BSA FTEs annually and \$250K by reducing manual work.Delivered a RAG-powered RFI/RFP response engine on Azure, with source-linked knowledge base from heterogeneous data, enabling editable, traceable, compliance-ready responses and cutting authoring time 60%.Designed Agentic AI–driven Code Modernization & Generation using LangGraph with OpenAI models to migrate legacy (.NET4→.NET8; COBOL→React/Java Spring Boot) monoliths to microservices and auto-generate 95% functional NX Monorepos (React Native, Nest.js) from specs, accelerating delivery 70% at 60% cost.Pioneered advanced data solutions by collaborating with Stanford AI Lab on a Text-to-SQL framework (benchmarked on BIRD) and developing an NL2SQL AgenticRAG POC saving 4 FTEs annually.	

Georgia State University <i>Graduate Research Assistant TReNDS Center</i>	Sep 2023 – May 2025 Atlanta, GA
<ul style="list-style-type: none">Customized Multi-modal LLMs for automated report generation from medical images and text using PyTorch, achieving a 13.4% higher BLEU4 than VisionGPT, and reducing inference time to 1.6 sec per image.Developed image classification models using TensorFlow/Keras, for diagnosing chronic diseases like retinopathy, schizophrenia, breast cancer, and colon cancer from respective medical images, reducing 5%–7% false negatives.	

Carelon Global Solutions <i>Software Engineer III Elevance Health</i>	Sep 2022 – Aug 2023 Hyderabad, TS
<ul style="list-style-type: none">Developed REST APIs for COmplementation INcitative System, a Microservices based application, to validate, compute, and expedite incentive payments, achieving a 10% reduction in processing time & enhancing scalability.Developed Python and SQL data clean-up scripts to resolve commission payment inconsistencies in health insurance policies, preventing over \$500K in overpayments and streamlining processing time.Resolved critical production issues in commissions calculation flow, ensuring accurate agent advance computation, saving \$1.5 million in historical commission overpayments. Received Go Above Impact Award for this work.	

Tata Consultancy Services <i>Systems Engineer Analytics & Insights Business Unit</i>	Aug 2020 – Sep 2022 Hyderabad, TS
<ul style="list-style-type: none">Designed a Bug Root Cause Prediction System based on logs, by implementing Attention LSTM model in Azure ML Studio, cutting the debugging efforts and saving 3 full-time equivalents annually.Implemented an Azure DevOps Model Deployment pipeline, reducing deployment time from 2 to 1.2 hours and increasing system availability by 25%. Recognized as Star Performer of the team for this significant work.Built a custom SonarQube plugin for static code analysis, integrated into pre-build pipelines, reducing errors and vulnerabilities by 15%, saving 6 hours of manual review time per week, and adhering to coding standards.	

SKILLS

Languages: Python, Java, SQL
Technologies: LangGraph, LangChain, Flask, FastAPI, Streamlit, Tableau, Spring Boot, REST APIs, Microservices
Libraries: PyTorch, torchtune, TensorFlow, Keras, Scikit-Learn, OpenCV, NLTK, NumPy, Pandas, Matplotlib
Cloud & MLOps: MLflow, AWS (EC2, Lambda, SageMaker), Azure (AI Services, DevOps), CI/CD, Git, Docker
Research Interests: Deep learning, Multi-modal Learning, Attention Networks, Large Language Models, AgenticAI
Certifications: Azure AI Fundamentals, Deep Learning Specialization, Python for Everybody

PROJECTS

- PRISM** | [Github](#) | [Python](#), [FastAPI](#), [React](#), [AI Agents \(LangGraph\)](#), [LLMs](#), [Vector DB](#) Oct 2025
• Built a **next-gen AI-powered data intelligence platform** integrating **NL2SQL**, automated ETL, one-click ML pipelines, and glass-box agentic workflows to turn diverse enterprise data into actionable insights within minutes.
- InsuCompass** | [Github](#) | [Demo](#) | [Python](#), [LangGraph](#), [Streamlit](#), [Groq](#), [Google Gemini](#), [ChromaDB](#) May 2025
• Developed an **Agentic RAG** health insurance advisor featuring a self-learning **Search Agent** that autonomously retrieves, verifies, and ingests new knowledge (CMS.gov, VA.gov), with multi-turn, personalized plan guidance.
- ScholarPulse** | [Github](#) | [Demo](#) | [Python](#), [LangChain](#), [Streamlit](#), [ChromaDB](#), [SentenceTransformers](#) April 2025
• Architected an AI-powered research assistant based on **Advanced RAG** to analyze complex academic papers, delivering tailored question-answering, summarization, and code generation for users with diverse backgrounds.
- Retinal Health Diagnostics** | [Github](#) | [Demo](#) | [Python](#), [TensorFlow](#), [FastAPI](#), [Streamlit](#) May 2024
• Achieved state-of-the-art performance with accuracies of 97.5% for cataracts, 85.6% for diabetic retinopathy, and 94.6% for macular edema, highlighting strong clinical relevance.

MASTER'S THESIS

- Attentive Multi-modal Learning for Medical Image Analysis** | Advisor: [Dong Hye Ye](#) Aug. 2023 – May. 2025
• Advanced **multi-modal LLMs** and **attention networks** to integrate medical images, clinical text, and genetics, improving diagnostic accuracy for schizophrenia and automating medical report generation.
- Focused on scalable, explainable AI systems for deployment in resource-constrained environments, contributing to cutting-edge research in **Generative AI** and **multi-modal learning**.

RESEARCH PUBLICATIONS

- Advanced research at the intersection of **machine learning**, **computer vision**, and **NLP**, focusing on scalable attention networks, multi-modal learning, transformers and vision-language models for medical AI, resulting in **1K+ citations**, **13 H-index**, and impactful contributions to diagnostic decision-support systems ([Google Scholar](#)).
- Published **15** peer-reviewed papers and delivered **multiple oral presentations** at top-tier AI/ML conferences, including **AAAI 2026 (Oral)**, **EMBC 2025 (Oral)**, **ICIP 2024 (Oral)**, and **ISBI 2024 (Oral)**. Presented **8+** works across premier venues such as **ICASSP 2025**, and **NeurIPS 2025** workshops.
- Actively contributed to the research community as a reviewer for **25+ journals** and major conferences (AAAI, MICCAI, ISBI), evaluating **50+ submissions** across machine learning, biomedical imaging, and computer vision.

ACCOMPLISHMENTS

- Winner of the **D3CODE Hackathon 2025** (US Region & Global) by UST Global Inc., outperforming top international teams from the UK, Mexico, Malaysia, and India.
- Awarded the **NeurIPS 2025 GenAI4Health Workshop Travel Grant** and the **IEEE SPS Travel Grant** for **ICIP 2024**; recipient of a **100% graduate scholarship** at Georgia State University in recognition of academic excellence and research potential.
- Honored with multiple corporate excellence awards, including the **Go Above – Impact Award** at Elevance Health (Carelon Global Solutions) and the **Star Performer Award** at Tata Consultancy Services for critical code-base analysis and impactful project contributions.
- Recognized for outstanding academic achievements with the **Chairman's Gold Medal**, **Best Outgoing Student of CSE**, and **4-year Academic Excellence Awards** at **VFSTR University**, along with multiple wins in national-level technical expos and paper presentation competitions.