

S MUNI HARISH

AI & SOFTWARE ENGINEERING LEADER · FINTECH · LLM ENGINEERING · MACHINE LEARNING & DEEP LEARNING

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PROFESSIONAL SUMMARY

Software Apps Technical Lead Engineer and AI systems architect with 5+ years of experience delivering enterprise software and intelligent products across fintech, retail, digital identity, search, web, and mobile. Core strengths include secure payment and wallet platforms, production LLM and Agentic AI applications, and machine learning and deep learning systems for recommendations, semantic search, computer vision, and fraud detection. Combines hands-on full-stack depth with enterprise architecture, secure engineering, and multidisciplinary leadership. Part-time Ph.D. scholar researching Agentic AI, recommender systems, and LLM architectures.

CORE EXPERTISE

Fintech Systems: payment gateways, digital wallets, transaction processing, digital banking, Digital KYC, identity verification, secure financial SaaS

LLM Engineering: production LLM applications, LangGraph, LangChain, CrewAI, MCP, RAG, model orchestration, evaluation, LLMops

Machine Learning & Deep Learning: recommendation and ranking systems, computer vision, OCR, face recognition, liveness detection, fraud detection

Search & Retrieval: semantic search, Apache Solr, Elasticsearch, OpenSearch, Milvus, FAISS, Qdrant, hybrid and vector search

Engineering: Python, FastAPI, Flask, Node.js, NestJS, Java, Spring Boot, React, React Native, Expo, TypeScript

Platforms & Data: Kafka, Pulsar, Redis, BullMQ, Airflow, PostgreSQL, MongoDB, Docker, event-driven and async architectures

AI Tooling: Langfuse, Opik, Ollama, vLLM, LM Studio, SGLang, DeepEval, RAGAS, LiteLLM

PROFESSIONAL EXPERIENCE

Software Apps Technical Lead Engineer

Aug 2026 – Present

Lam Research · Bengaluru

- Lead the design and delivery of enterprise software solutions supporting business-critical operations and digital transformation initiatives.
- Partner with engineering teams, business leaders, and cross-functional stakeholders to architect scalable solutions and guide technical decisions.
- Champion production LLM, machine learning, deep learning, Generative AI, and intelligent automation opportunities across enterprise workflows.
- Drive architecture reviews, engineering best practices, full-lifecycle delivery, mentoring, knowledge sharing, and continuous improvement.

Senior Software Engineer

Jul 2024 – Aug 2026

Integra Micro Software Services Pvt Ltd · Bengaluru

- Served as principal architect and technical owner for the Nearshop financial SaaS suite, leading fintech platform architecture, AI adoption, backend systems, applications, and production delivery.
- Architected Digital KYC and identity verification workflows using deep learning for document verification, face matching, liveness detection, anti-spoofing, and fraud prevention with FastAPI, Qdrant, ONNX Runtime, OpenCV, OCR, and VLMs.
- Built production LLM and Agentic AI applications with LangGraph, LangChain, CrewAI, RAG, and MCP patterns, including customer-support chatbots and enterprise knowledge workflows.
- Engineered real-time ML recommendation and ranking systems for loan, logistics, and product journeys using Solr, Elasticsearch, Milvus, FAISS, and semantic/vector retrieval.
- Designed event-driven infrastructure with Kafka, Pulsar, Redis, and BullMQ; led secure SDLC, architecture reviews, engineering standards, and production delivery.
- Mentored and coordinated a multidisciplinary team of 20+ engineers while contributing across Python, Node.js, NestJS, React, React Native, and Expo.

Software Engineer

Jun 2022 – Jun 2024

Integra Micro Software Services Pvt Ltd · Bengaluru

- Delivered scalable fintech systems across backend, web, and mobile using Node.js, NestJS, FastAPI, Spring Boot, React, React Native, and Expo.
- Developed payment gateway, wallet, and transaction integrations for Sasai Payments and Skenipay, and contributed to the MasterCard Community Pass digital identity application.
- Built LLM-powered financial and retail applications and ML-driven search and recommendation experiences using LangChain and production retrieval systems.

Associate Software Engineer

Sep 2021 – Jun 2022

Nearex Technologies Pvt Ltd (Integra Group) · Bengaluru

- Built fintech microservices, payment workflows, and digital banking capabilities using Java, Spring Boot, Spring Data JPA, REST APIs, and database modelling.
- Developed React web applications and React Native/Expo mobile applications for MasterCard Community Pass, AzamPesa, SwaziBank, and other digital payment products.
- Contributed to API design, reviews, testing, deployment, performance optimization, defect resolution, and production support.

OPEN-SOURCE LEADERSHIP & SELECTED PROJECTS

- **Medhira Open-Source Community — Founder & Maintainer:** lead architecture, roadmap planning, and releases across LLM systems, ML infrastructure, MCP integrations, semantic search, and application frameworks.
- **agloom:** modular platform for building production LLM applications, AI agents, workflows, knowledge systems, model interoperability, evaluation, tools, and MCP integrations.
- **agsuperbrain:** local-first project knowledge platform for semantic search, contextual retrieval, project memory, and AI-assisted discovery.
- **medhira-playwright-crawl:** concurrent Python and Playwright framework for web crawling, structured extraction, screenshots, and AI-ready data collection.

CERTIFICATIONS

- n8n Automation Level 2 — Advanced Workflow Orchestration
- Elastic Certified GenAI Associate — Elastic Certified Professional
- Neo4j Certified Professional — Graph Data Modeling and Cypher
- Hugging Face AI Agents Course — LangGraph, LangChain, and LlamaIndex agent pipelines
- Astronomer Certification for Apache Airflow 3 Fundamentals
- DeepLearning.AI Specializations — Machine Learning, Generative AI, and LLMOps
- SWAYAM / NPTEL — AI/ML, Data Science, and Programming coursework

EDUCATION

Ph.D. Scholar (Part-Time), Artificial Intelligence — Bharatiya Engineering Science and Technology Innovation University | 2022 – Present

Focus: Agentic AI, semantic search, recommender systems, LLM architectures, and distributed AI systems.

M.Tech, Computer Science & Engineering — Sri Venkatesa Perumal College of Engineering and Technology | 2021 – 2023

B.Tech, Electronics & Communication Engineering — Sri Venkatesa Perumal College of Engineering and Technology | 2017 – 2021