

HARSHA K

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PROFESSIONAL SUMMARY

Software Engineer with 3+ years of experience building scalable full-stack and cloud-native applications. Skilled in React, Node.js, and AWS, with hands-on expertise integrating AI/LLMs into production systems. Delivered measurable results such as 85% faster decision-making and 93% prediction accuracy. Focused on creating high-performance software that drives business impact.

Master of Science in Computer Science | *Saint Louis University, USA*

Aug 2023 – May 2025

Coursework: Algorithms, , Principles of Software Development, Kubernetes, Applied Machine Learning , Predictive Modeling

Bachelor of Technology | Vellore Institute of Technology, India

Aug 2019 – May 2023

TECHNICAL SKILLS

Programming Languages : Python, C++, Java , JavaScript, TypeScript
Web & Backend Frameworks : ReactJS, Node.js, Express.js, Spring Boot
Cloud & DevOps : AWS (S3, SQS, SNS), Docker, Kubernetes, Git, CI/CD
Databases : MySQL, MongoDB, PostgreSQL
Data & AI Libraries : TensorFlow, Matplotlib, Lang Chain, Pandas

PROFESSIONAL EXPERIENCE

Software Engineer – AI & Data | Alpha Recon |United states

July 2025 - Present

- Built “Secure Recon” full-stack threat platform delivering real-time dashboards, role-based access views, and AI-driven reporting via RAG pipelines with multimodal embeddings following Agile methodologies.
- Fine-tuned proprietary LLM “Rexx” with LoRA and RLHF to align outputs with security use cases, enabling real-time risk scoring and automated incident response with improved accuracy.
- Integrated Lang Chain, Hugging Face models, and multimodal embeddings across text, images, and geospatial data to deliver contextual threat summarization, advanced semantic search, and improved intelligence retrieval accuracy.

Software Engineer - AI & Data | Metis Analytics |United States

Feb 2025 – June 2025

- Built Tools4Logistics platform with secure authentication and reinforcement learning–driven route optimization, achieving 85% faster decision-making, 93% prediction accuracy, and 75% fewer supply-chain issues.
- Developed Prepr AI disaster-response platform with intelligent workflow orchestration, reducing preparation time by 85% and improving departmental response accuracy to 93%.
- Delivered full-stack infrastructure with AWS, PostgreSQL, and CI/CD pipelines integrated with real-time monitoring, ensuring reliable cloud-native deployments, improved scalability, and long-term system stability.

Web Developer| Global Grad| Saint Louis University| United States

Aug 2024 - Dec 2024

- Built a campus navigation platform (React, JavaScript, Firebase) with maps and directories, improving onboarding accessibility.
- Integrated real-time updates via RESTful APIs boosting student engagement by 60% and reducing support requests by 45%.

Associate Software Engineer - Data & AI| Attorney Office |India

Apr 2021- July 2023

- Developed scalable backend systems (Python, SQL) and integrated RESTful APIs connecting legal portals with law enforcement databases, accelerating case data retrieval and improving accuracy.
- Optimized database performance and engineered structured datasets for AI models, enabling classification and pattern recognition across large volumes of criminal records following SDLC.

Academic Projects

CentrX – Student & Club Engagement Platform | Node.js | MongoDB | JavaScript | SLU SSO | GitHub

- Built RESTful APIs enabling students to RSVP for events, track sessions, and receive timely real-time updates.
- Integrated SLU Single Sign-On with OAuth2/JWT and custom role-based access control while designing optimized data schemas and aggregation pipelines to generate reports and rankings with integrity.

Personal Finance Management Application| HTML/CSS| JavaScript| Node js| MongoDB| Postman| GitHub

- Built a finance tracker for account management, transaction monitoring, spending visualization, and budget insights.
- Designed a responsive financial dashboard with categorized budgets and integrated APIs for balance tracking, ensuring data accuracy, system reliability, and long-term stability through validation and automated testing.

Research Project – AI Document Summarizer | Python, Lang Chain, Hugging Face, FAISS, Flask

- Designed and implemented a Retrieval-Augmented Generation (RAG) system using Lang Chain and Hugging Face models to generate context-aware summaries from academic papers and research articles.
- Integrated semantic search with FAISS and deployed a Flask API for real-time summarization, reducing manual reading and review time by 70% while improving accessibility to large research datasets.

LEADERSHIP SKILLS & CERTIFICATIONS

- Served as the Core Committee member of IEEE – SPS, VIT University
- Worked as Vice – President of LEO Club ,VIT University
- AWS Certified Cloud Practitioner
- Agent force Specialist

Aug 2021

Sept 2022

Feb 2025

May 2025