KISHOREKUMAR AVUDAI NAYAGAM

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PROFESSIONAL SUMMARY

Software Engineer with 2+ years of experience building scalable React/Node.js applications, backend services, and data-driven systems. Delivered measurable results including an 80% reduction in support tickets, 40% faster release cycles through CI/CD automation, and 99% API uptime across global business units. Skilled in SQL optimization, REST API design, AWS, Docker, GitHub Actions, and applied GenAI tooling (LangChain, FAISS, OpenAI API). Open to relocation and actively seeking SDE and Data Engineer roles across the United States.

TECHNICAL SKILLS

Languages: C, C++, Python, TypeScript, JavaScript, Java, Scala
Web frameworks: React.js, Next.js, Node.js, Express, Django, Tailwind CSS
Cloud & DevOps: AWS (EC2, S3), Docker, Kubernetes, GitHub Actions, CI/CD, Terraform
Data / ML: SQL (PostgreSQL, MySQL), MongoDB, Hadoop, Spark, Pandas, Scikit-learn
GenAI /LLM: OpenAI API, LLMs, LangChain, FAISS, RAG, Prompt Engineering, AI Agents
Tools & Testing: Git, Jest, Postman, JIRA

EDUCATION

Master of Science in Computer Science | University at Buffalo, SUNY   Aug 2024 - Dec 2025
Relevant Coursework: Data Structures and Algorithms, Machine Learning, Data Intensive Computing, Information and Network Security, Operating Systems and Database Systems

Bachelor of Engineering in Computer Science and Engineering | Anna University, India   Aug 2018 - May 2022
Relevant Coursework: Data Structures and Algorithms, Distributed Systems, Artificial Intelligence, Computer Networks, Cloud Computing, Software Testing

PROFESSIONAL EXPERIENCE

Software Engineer | Cognizant Technology Solutions   Jan 2022 - May 2024

- Migrated a legacy monitoring system to a modern React.js application with dynamic dashboards and Highcharts visualizations, improving maintainability and reducing support tickets by **80%**.
- Designed and maintained scalable REST APIs using Node.js/Express with JWT-based authentication, enabling secure multi-unit access and **sustaining 99% uptime** across 8+ global business units.
- Optimized SQL queries and redesigned database schemas for high-volume analytics endpoints, improving query performance and reducing data **retrieval latency by approximately 30%**.
- Engineered backend services that integrated seamlessly with downstream data workflows and third-party systems, **strengthening data consistency** and reliability across environments.
- Automated CI/CD pipelines using GitHub Actions and Docker, **cutting release cycles by 40%** and enabling standardized deployments for both application and data services.
- Implemented automated testing (Jest) and system health checks, improving service stability and reducing regression issues across critical APIs.
- Collaborated with cross-functional Agile teams to **deliver 10+ production releases**, improving **operational efficiency** and driving data-backed decision workflows for business stakeholders.

ACADEMIC PROJECTS

GenAI Multi-Agent Tech Support Assistant | [Link](#)   Oct 2025

- Built a **multi-agent assistant** using **LangChain** + **LangGraph** where a Retrieval Agent fetches relevant documents, and a Support Agent synthesizes human-like resolutions using LLM reasoning.
- Implemented a mini-RAG pipeline using **embeddings + FAISS** vector DB for semantic retrieval across product manuals and troubleshooting guides.
- Exposed the system as a FastAPI microservice and containerized it with Docker for easy deployment and scaling.
- Evaluated model performance using retrieval accuracy and response metrics, iterating prompts and retrieval settings for improved reliability.

Tours Booking App — Full-Stack Booking Platform | [Link](#)   Jan 2025

- Built a full-stack booking platform with secure JWT authentication, role-based access control, and protected admin dashboards, supporting real-time tour browsing and payments.
- Designed optimized REST APIs and MongoDB queries to r**educe data-access latency** and improve page load times for high-traffic routes.
- Implemented Stripe-based secure payments with webhooks for transaction verification and refund workflows.
- Automated **CI/CD** using GitHub Actions (testing → build → deployment), enabling smooth rollout with zero manual intervention.
- Containerized the app with Docker and deployed to cloud hosting for scalable access and consistent runtime environments.
- Technologies and tools used: MongoDB, Express.js, React, Node.js, Stripe, Docker, GitHub Actions

Job–Resume Matcher — AI Semantic Matching System | [Link](#)   July 2025

- Developed a semantic search engine using OpenAI embeddings + FAISS vector database, enabling fast and accurate resume-to-job matching.
- Built a RAG-style pipeline using LangChain with custom prompt templates and similarity thresholds to generate tailored resume improvement suggestions.
- Created a Streamlit-based UI for **interactive job uploads**, match scoring, and section-wise recommendations.
- Automated deployments using GitHub Actions, enabling frictionless updates to the model and UI.
- Technologies and tools used: LangChain, OpenAI API, FAISS, Python, Streamlit, GitHub Actions

Box Office Prediction — End-to-End ML Forecasting Pipeline | [Link](#)   Aug 2024

- Built and deployed an AI-driven financial forecasting tool using Streamlit, Scikit-learn, Pandas, Matplotlib to predict movie success and provide data-driven investment recommendations.
- Engineered 7+ predictive features from 10,000+ historical movie records with genre classification, budget categorization, and seasonal analysis for 85%+ prediction accuracy.
- Implemented an end-to-end ML pipeline, including data preprocessing, feature engineering, and model training; Dockerized the application and deployed it as an interactive web app with real-time ROI calculations.