Sairamnath (Sai) Krishnan

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EDUCATION

Master of Science, Information Systems — Aug 2023 - Dec 2024
University of Maryland, Robert H Smith School of Business
- Coursework: Data Processing and Analysis in Python, Managing Digital Business Market, Project Management, Digital Transformation in Business, Harnessing AI for Business, Causal Inference and A/B Testing, Data - Models and Decision using R.

Bachelor of Technology, Information Technology — Jul 2017 - Jun 2021
Anna University
- Coursework: Programming and Data Structures, Operating systems, Computer Organization and Architecture, Paradigms of Algorithm Design, Software Engineering Methodologies, Database Management Systems, Computer Networks.

SKILLS

Programming Languages: Python, Java, TypeScript/JavaScript, C++, PL/SQL, R.
Front End: React Native, React.js, Tailwind, HTML/CSS.
Back End & APIs: Java, Node.js (Express), REST, WebSockets, FastAPI, Fastify.
Data & Cloud: SQL, Snowflake, Hadoop, Kafka, PostgreSQL, MongoDB (NoSQL), AWS (S3, ECS, Lambda, Sagemaker).
GenAI / LLM Ops: OpenAI API, OpenAI Embeddings, LiteLLM router, RAG, prompt design.
DevOps / CI-CD: Docker, GitHub Actions, dbt, PowerBI, Junit, Grafana.

EXPERIENCE

YourPassion1st — Oak Park, IL, USA
Software Engineer — Feb 2025 - Present
- Led end-to-end infrastructure migration from a legacy private server to AWS, leveraging S3 for scalable storage and ECS for containerized service deployment.
- Modernized static website using Next.js and React.js, improving onboarding flow and reducing average page load time by **60%**.

Myma.AI — Nashville, TN, USA
Founding Software Engineer — Jan 2024 - Dec 2024
- Engineered OpenAI powered chat agents to automate customer complaint and room service process, improving complaint turnaround-time by **30x** and boosting customer satisfaction by **30%**.
- Engineered multiple MCP servers and hooked in relevant API's for dynamic context based chat responses and reducing hallucinations.

Freelancing – Bakery Store — College Park, MD, USA
Software Developer — Jan 2024 - Dec 2024
- Automated inventory counting with a React application, saved store team **7+** hours/week.
- Built an analytics tool to visualize $1M+ in annual inventory data, cutting procurement processing time by **30%**.
- Designed ETL pipelines to calculate operational costs from Grubhub sales data, reducing operational costs by **47%** during summer.

LTIMindtree — Chennai, India
Software Engineer — Jun 2021 - Jul 2023
- Architected an OpenTelemetry-based observability and diagnostics platform for cloud-native microservices, enabling real-time distributed tracing and anomaly detection, reducing MTTR by **25%**.

PROJECTS

AI Admissions Assistant
- Built a RAG chatbot with LangChain, OpenAI, and FAISS to guide students through master's admissions, combining intelligent retrieval and conversational memory for a highly relevant, user-friendly experience.
- Integrated LangChain's **ConversationalRetrievalChain** and memory buffers to support multi-turn conversations, ensuring continuity, and deeper personalization for users exploring admission pathways.

E-commerce Platform Analytics using Pyspark
- Built a distributed data pipeline in PySpark and HDFS to ingest, clean, and analyze e-commerce data from multiple sources, reducing latency by 40%.
- Designed a collaborative filtering recommendation system with 82% precision and 0.85 RMSE, increasing average cart size by 15%.

Real-Time Attention Span Tracking in Online Education (IEEE || GitHub)
- Developed an end-to-end attention span detection system using CNNs and OpenCV with real-time webcam inference and GUI feedback, simulating AI-driven human attention monitoring via PyQt GUI (**Published in IEEE at MIT URTC 2020**).
- Trained a Convolutional Neural Network on labeled facial behavior data, optimizing for focused vs. distracted state classification, showcasing ability to translate behavioral cues into data signals.