

Sairamnath (Sai) Krishnan

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EDUCATION

Master of Science, **Information Systems**
University of Maryland

Dec 2024

- 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**
Anna University

May 2021

- 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, GraphQL, 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, LLM Fine-tuning, Tensorflow, OpenCV.

DevOps / CI-CD: Docker, GitHub Actions, dbt, PowerBI, Junit, Grafana.

EXPERIENCE

YourPassion1st

Software Engineer

Oak Park, IL, USA

Feb 2025 - Present

- Led end-to-end infrastructure migration from a legacy private server to AWS, modernizing the static website using **Next.js and React.js**, improving onboarding flow and reducing average page load time by **60%**.

Myma.AI

Founding Software Engineer

Nashville, TN, USA

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%**.
- Reduced hallucination rates by **80%+** through **RAG**, rule-based filters, and QA pipelines, eliminating overconfidence in production.

University of Maryland

Consultant, Software Developer

College Park, MD, USA

Jan 2024 - Dec 2024

- Automated inventory counting with **React.js** web 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

Software Engineer

Chennai, India

Jun 2021 - Jul 2023

- Designed an OpenTelemetry based observability tool for cloud-native microservices, by simulating 2000 concurrent users to identify performance bottlenecks in our system and prepare for our largest traffic events.
- Increased test coverage by **120%** to reliably automate testing efforts using Tricentis Neoload cloud service.

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.