

# Sairamnath (Sai) Krishnan

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## EDUCATION

Master of Science, Information Systems

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

May 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.

**University of Maryland**

College Park, MD, USA

**Consultant, 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.