

Sathvik Manthri

☎ +91-7396011700 | ✉ sathvikm@iisc.ac.in | 🌐 [GitHub](#) | [LinkedIn](#) | 🌐 sathvik-manthri.streamlit.app

SKILLS & INTERESTS

Programming skills: C, C++(basic), Python, Java(basic), SQL, HTML, Latex ; Scikit-learn, Scipy, Numpy, Pandas, Matplotlib, OpenCV, Seaborn, Gradio, FastAPI ; Pytorch, Tensorflow, Langchain, LangGraph ; Docker, Fusion 360

Areas of Interest: Computer Vision, Deep Learning, NLP, Data Science, Generative AI, LLMs, Robotics

INDUSTRY EXPERIENCE

⇒ **ThoughtSpot, Bengaluru**

May 2025 - July 2025

Engineering Intern

[Certificate](#)

- Developed AI-Driven **Liveboard Agent** using **LangGraph** to automate visualization grouping and layout based on narrative context (Who, Why, What). Also implemented **Dynamic Tab Handling** enabling selective beautification and auto-generation of tabs, improving dashboard usability and interpretability.

- Built **Screenshot-Based Regression Pipeline** that used pixel-level comparison to catch UI regressions, successfully identifying issues in background rendering.

- Added feature-rich Liveboards(dashboards) to the metadata, eliminating the need for manual setup during E2E testing and accelerating test case creation.

⇒ **Coboticca Automation Pvt. Ltd, Mumbai**

May 2024 - June 2024

Design Intern

[Certificate](#)

- Designed a mobile robot using Fusion 360 to assist elderly users by delivering a cup of water on demand through a custom-built automatic cup-dispensing mechanism, eliminating the need to lift heavy water containers and also integrated a medication storage system that reminds users to take their medication on time, automatically dispensing water with the medicine for added convenience.

RESEARCH EXPERIENCE

⇒ **IISc Bengaluru, Learning & Extraction of Acoustic Patterns Lab**

December 2025 - Present

Research Intern under Prof. Sriram Ganapathy

- Working on Auditory Attention Decoding and Target Speech Extraction

⇒ **IIT Indore, AI Lab**

June 2024 - Present

Research Intern under Prof. Chandresh Kumar Maurya

- Explored Hierarchical Multi-Task Learning frameworks for audio classification and co-authoring a dataset paper on gun-sound classification for gun-type and broad direction prediction.

⇒ **IIT Indore, Mathematics of Data Science and Simulation Lab**

May 2024 - July 2024

Research Intern under Prof. Kapil Ahuja

[Certificate](#)

- Contributed to the **Deep Learning for Genetic Studies** project, focusing on developing deep learning models and attention mechanisms for predicting gaps in genome sequences, achieving 0.86 training accuracy and 0.71 validation accuracy.

PROJECTS

⇒ **Krishi Mitra**

October 2025 - November 2025

Course: Generative & Agentic AI in Practice

[GitHub link](#)

- Built a multilingual, AI-powered conversational agent that bridges information gaps for Indian farmers.
- It delivers real-time crop prices, aggregated government scheme guidance, localized weather insights, and image-based crop disease diagnostics through a single web chat interface.

⇒ **TachyView**

October 2025 - November 2025

Course: Graphics & Visualization

[GitHub link](#)

- It is a web-based visualization tool that combines topological spines, and volume rendering to enable intuitive, interactive exploration of scalar fields directly in a browser.

⇒ Bird_Scouts

October 2024 - November 2024

Course: Applied Data Science and AI

[GitHub link](#)

- Built a Streamlit web app that classifies over 50 bird species through separate image (including feathers) and audio pipelines, leveraging **EfficientNetV2-S** and **YOLO** for feature extraction & object detection. Trained using **Hierarchical Multitask Learning** and **FAMO optimization** achieving a ROC_AUC score of 0.996.
- Implemented a user login system along with a collaborative community map for bird sightings, encouraging greater participation in biodiversity monitoring and fostering user engagement.
- Integrated an **RAG-powered AI chatbot** within the web app using **ChromaDB** and **LangChain**, providing users with an interactive, AI-driven experience to answer bird-related queries.

⇒ Community Detection in Financial Networks

November 2024

Course: Data Analytics

[GitHub link](#)

- Implemented a **Stochastic Block Model** framework to analyze community structures within global trade networks (spanning 200+ countries) and the correlations in the Indian equity market.

⇒ Term paper report on the topic State Space Models and HiPPO framework

May 2024

Course: AI & ML

[Report, Code and Presentation link](#)

⇒ Presentation on Undecidability of Validity of First Order Logic

March 2024

Course: Automata and Computability

[Presentation link](#)

EDUCATION

• Indian Institute of Science, Bengaluru

2022-2026

B.Tech in Mathematics and Computing

CGPA: 7.7 ; TGPA: 8.4

• Alphores Junior College, Karimnagar, Telangana

2020-2022

Telangana State Board of Intermediate Education

Percentage: 98.9%

• Alphores e-techno school, Karimnagar, Telangana

2015-2020

The Board of Secondary Education, Telangana

GPA: 10

POSITIONS OF RESPONSIBILITY

• Initial member in the Founding panel , Mechanical Team lead , Software team member

August 2023 - May 2024

⇒ Team Vicharaka @ IISc UG Robotics Club

- Led the Mechanical sub-team in designing a rover by analyzing existing models and research papers on stability and wheel design, culminating in the creation of two prototypes built from scratch in our workplace.
- Organized and showcased the rover at IISc's Open Day 2024, receiving public and institutional acclaim - [Vicharaka @ OpenDay2024](#)
- The official magazine of IISc published an article on the success of our club - [Red Rover](#)
- Designed a rover with a 100kg payload, featuring autonomous navigation and a robotic arm for soil sample collection.
- Developed a complete CAD model of the rover in Fusion-360 and performed stress analysis and simulations in Gazebo. (3D model - [Rover](#))

• Co-lead of Design Team

May 2023 - February 2024

⇒ Databased @ IISc UG CS club

- Displayed interactive and fun projects on Open Day 2024 @ IISc - [Databased @ OpenDay2024](#)

ACHIEVEMENTS

• **JEE Advanced** All India Rank 4044

• **JEE Main** All India Rank 3337

• **TS EAMCET** State Rank 409