

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

Course: Applied Data Science and AI

October 2024 - November 2024

[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 artical 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