

MUTHURAMA ARUMUGAM

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EDUCATION

Sri Sairam engineering College
Bachelor of engineering CSE(AIML); CGPA: 8.56
12th grade - State Board of Tamil Nadu
Girls higher secondary School -92%

Chennai, India
October 2022 - Present
Chennai, India
June 2021 - May 2022

SKILLS SUMMARY

Languages: Python,C/C++
Technologies: Data structures & Algorithms,Machine,learning,Deep learning,NLP,Operating System,OOP,DBMS,Computer Networks
Frontend: HTML,CSS,Javascript,React.js,Vue.js
Backend: Flask,Node.js REST APIs, Firebase
Data & Visualization: Power BI, Tableau, Excel, PowerPoint
Databases: SQL(MySQL), NoSQL(MongoDB),PostgreSQL
Platforms & Tools: Linux,Jupyter Notebook, VS Code, Google Colab
Cloud & DevOps: Docker, Git,GitHub

WORK EXPERIENCE

MACHINE LEARNING INTERN | Sri Sairam Techno Incubator Foundation **June 24- July 24**

- Engineered an AI-driven welding inspection system, achieving **90%** accuracy in automation.
- Optimized data acquisition, model training, and inference, boosting defect detection by **20%**.
- Applied YOLO, OpenCV, and CNNs for enhanced object detection in welding images.
- Enhanced loss functions, decreasing false positives by **20%** to improve precision.
- Key Technologies: Machine Learning, Deep Learning, YOLO, OpenCV, CNN, Image Processing**

FRONTEND DEVELOPER INTERN | MAESTROMINDS **January 25 - February 25**

- Designed a scalable event management platform, improving planning efficiency and cutting manual effort by **40%**
- Integrated interactive features that boosted user engagement by **25%**, enhancing platform responsiveness and user experience.
- Formulated a responsive web interface using HTML, CSS, and JavaScript within 10 days.

PROJECTS

Flashcard quiz WebApp | [Github](#) **April 2025**

- Built a responsive Flashcard Quiz App with flip animation, dark mode, music toggle, and gamified learning features.
- Integrated **Firestore** for public flashcard sharing, real-time sync, and card limit logic (supports 1000+ cards).
- Customizable flashcards and personalized quizzes with support for topics, difficulty levels, and gamified learning.
- Built with **React.js, Tailwind CSS, TypeScript**; achieved **90+ Lighthouse score** and boosted engagement by **35%**.

Stock Price Prediction | [Github](#) **October - 2024**

- Constructed a stock price prediction web app using Streamlit, delivering real-time forecasts with **85%** accuracy.
- Devised a strategy leveraging LSTM and ARIMA models, enhancing trend analysis precision by **20%**.
- Incorporated real-time visualizations, boosting analytical accuracy by **15%**
- Key Technologies: LSTM, ARIMA, Streamlit, Time Series Forecasting, Python**

HR Data Analytics dashboard | [Github](#) **December 2023**

- Constructed an interactive HR analytics dashboard, increasing decision-making efficiency by **35%**.
- Collected data from multiple sources and enhanced HR metric analysis accuracy by **25%**, enabling better decision-making.
- Streamlined data visualization, cutting reporting time by **40%** and enhancing actionable insights.
- Key Technologies: Power BI, Data Analytics, Data Visualization, HR Metrics**

CERTIFICATES

- Machine Learning** – GUVI Geek Networks, IITM Research
- C Programming, Python, Arduino** – Spoken Tutorial
- Data Visualization** – GUVI Geek Networks, IITM Research
- Data Analytics Job Simulation** – Deloitte
- Programming in Python & Generative AI** – IITM Research Park
- Building language models** - AWS Training

ACHIEVEMENTS

- Microsoft Machine Learning Challenge 2023** – Successfully completed.
- Smart India Hackathon (SIH) 2023** – Ranked among the **top 100 finalists** for developing a model to predict electricity generation from wind turbines.
- Patent Published (March 2025)** – **Fake Profile Detection Using Hybrid AI Model.**
- Bicoder Challenge** – Secured **3rd place** in a competitive programming contest