Sanjay Muruganandam

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Education

SASTRA University, Tanjore

2022-2026

Bachelor of Technology in Computer Science & Engineering Minor Specialization in Robotics & Automation *Currently Pursuing Hons. Degree*

CGPA: 8.5475

Blossom Public School, Tanjore

2015-2022

Higher Secondary Education Grade X: 93.2% — Grade XII: 93.4%

Certifications & Projects

Online Certifications:

• Elite certificate on Google Cloud Computing Foundations (IIT Kharagpur)

Aug-Oct 2023

• Elite certificate on Introduction to Machine Learning (IIT Madras)

Jul-Oct 2024

• Elite certificate on Privacy and Security in Online Social Media (IIIT Hyderabad)

Jan-Apr 2025

Workshops: Attended Summer Workshop on Digital Image Processing (2024), SASTRA University

Projects:

• Smart Water Management System (Cloud + IoT)

GitHub Repo

- Implemented an Industry 4.0-ready smart home solution for efficient water usage.
- Utilized infrasonic sensors and Wi-Fi modules to collect real-time data.
- Enabled live monitoring and automation using Blynk Cloud visualization.

• Heart Disease Prediction using Hybrid ML + Metaheuristics

GitHub Repo

- Applied 5 ML models: RFC, LRC, DTC, XGBC, KNNC to medical datasets.
- Integrated 4 optimization algorithms: Pathfinder, Giant Armadillo, Forest Optimization, Slime Mould Algorithm.
- Constructed hybrid models to improve diagnostic accuracy.

Movie Recommendation Chatbot using NLP

GitHub Repo

- Developed a Python chatbot recommending films based on user input.
- Employed TF-IDF vectorization, cosine similarity scores, and fuzzy string matching (fuzzywuzzy).
- Supported filtering by genre, decade, director, and actor.

Skills

• **Programming:** C, C++, Java, Python

• Tools: Git, Arduino UNO

• **DB**: MySQL, MongoDB

• Web: HTML, CSS, JS, Django, AJAX

• Cloud: Google Cloud, Blynk

• AI/ML: NLP, Scikit-learn

• OS: Windows, Ubuntu

• Concepts: DSA, OOP, TOC, OS, CN, DIP

Languages

English: Fluent • Tamil: Fluent