

Santhana Krishnan V

EDUCATION

KCG College of Technology

Chennai, India

B.E. in Computer Science and Engineering, GPA: 7.85/10

Nov 2021 – May 2025

- **Concentrations:** Machine Learning, Cloud Computing
- **Coursework:** Algorithms, Data Structures, DBMS, OOP, Software Design, Theory of Computation, Statistics, Networks

EXPERIENCE

Data Science Intern – IIT Madras (ICSR)

Chennai, India

May 2025 – Present

- Engineered an AI-powered QA system using **LangChain** and **ChromaDB** with Gemini models for Retrieval-Augmented Generation (RAG) to deliver accurate, context-aware answers from structured and unstructured data.
- Integrated large language models (LLMs) with internal datasets and web sources, enhancing knowledge retrieval efficiency by 60%.
- Built intelligent Power BI dashboards by preprocessing multi-source data (SQL Server, Excel, APIs), enabling dynamic insights and predictive metrics.
- Designed role-based access in a Flask admin panel and optimized analytics with **DAX**, reducing dashboard query latency by 30%.
- Tech: LangChain, ChromaDB, Gemini, Power BI, Python, SQL Server, DAX, Flask

Machine Learning Intern – Cognifyz Technologies

Remote

Jul 2024 – Aug 2024

- Processed and visualized geo-spatial datasets to identify trends in restaurant density across cities.
- Performed data cleaning, EDA, and feature engineering using NumPy and Pandas.
- Trained and evaluated regression and classification models; improved F1-score by 18%.
- Tech: Python, Pandas, NumPy, Scikit-learn, Matplotlib

PROJECTS

- **Deep CNN for Aerial Ship Detection:** Built a CNN model for classifying high-resolution aerial images with 92% accuracy. Used Keras and OpenCV for image preprocessing.
- **Heart Disease Prediction System:** Developed an ML-based system using logistic regression and decision trees, achieving 88% accuracy on test data.
- **Autism Detection using ANN:** Trained an artificial neural network (ANN) for early autism diagnosis using clinical data; achieved precision of 85%.
- **RAG Chatbot with Gemini:** Built a website-aware chatbot using Flask and LangChain + Gemini. Embedded CSV and website knowledge base with ChromaDB.

INVOLVEMENT

- **Mentor – App Development Club, KCG:** Mentored juniors in full-stack development, version control, debugging, and UI/UX best practices through hands-on sessions.

HACKATHONS

- **Top 50 – VIT Cyber Hackathon 2023:** Selected by Tamil Nadu Police as one of the top 50 participants out of 1000+ nationwide.
- **Finalist – Smart India Hackathon 2024:** Among top 6 teams selected for the final round from 10,000+ teams across India.

SKILLS

Languages: Python, JavaScript, Java

Frameworks & Tools: Flask, React, Streamlit, TensorFlow, OpenCV, Scikit-learn, LangChain, Excel, Power BI

Technologies: MongoDB, MySQL, Docker, AWS (EC2, S3), Git, ChromaDB