

Sanjay Kumar S

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GitHub

Professional Summary

Final-year B.Tech student specializing in Artificial Intelligence and Data Science with hands-on experience in machine learning, deep learning, and AI-powered application development. Proficient in building end-to-end AI solutions including computer vision systems, medical diagnosis platforms, and financial simulations. Strong foundation in data analysis, model evaluation, and real-world problem solving.

Education

B.Tech in Artificial Intelligence and Data Science

2022 – 2026

Panimalar Engineering College, Chennai

Higher Secondary Certificate (HSC)

2021 – 2022

Vivekananda Vidyalaya Matric Hr. Sec. School, Manaipoondi

Technical Skills

Programming Languages: Java, SQL

Machine Learning & AI: Scikit-learn, TensorFlow, YOLO, OpenCV, EasyOCR

Data Analysis: Pandas, NumPy, Matplotlib

Frameworks & Tools: Streamlit, LangChain, FinRL

Databases: Oracle SQL

Other Skills: Model Evaluation, Data Preprocessing, Feature Engineering

Projects

Vehicle Number Plate Detection System

- Developed an AI-based computer vision system to detect and extract vehicle license plates from images.
- Integrated OCR for automatic text recognition and registration verification.
- Implemented YOLO for real-time detection and OpenCV for image preprocessing.
- Tools:** Python, YOLO, OpenCV, EasyOCR

Medical Diagnosis System

- Built a Streamlit-based web application for predicting diabetes, heart disease, Parkinson's, lung cancer, and hypothyroidism.
- Trained and evaluated supervised learning models using real-world datasets.
- Tools:** Python, Streamlit, Scikit-learn, Pandas

AI-Powered Hedge Fund Simulation

- Designed an investment simulation platform using AI agents representing real-world investor strategies.
- Implemented reinforcement learning-based financial decision modeling.
- Tools:** Python, FinRL, LangChain, OpenAI API

Experience

Machine Learning Intern

May 2024 – June 2024

Infomatronics Project Service (Remote)

- Worked on machine learning models for real-world data analysis problems.
- Assisted in developing supervised learning classification solutions.
- Participated in data preprocessing, model evaluation, and hyperparameter tuning.

Certifications

- Introduction to Python – Great Learning
- Introduction to Data Science – Infosys Springboard
- Full Stack Web Development Workshop – DevTown
- Data Analytics and Visualization Job Simulation – Forage
- Oracle Certified

Research & Publications

AI-Based System for Mental Health and Brain Cancer Diagnosis

December 2025

Published in the International Journal of Engineering Research & Technology (IJERT).