Sanjay Kumar S

sanjayksk1712@gmail.com ◇ +91 94870 44111 ◇ Github Profile ◇ LinkedIn Profile

EDUCATION

SRM University, KTR, Chennai — Chennai, India
B.Tech in Computer Science and Engineering (AI&ML) — 2023 – 2027
- Current CGPA: 9.44

EXPERIENCE

Undergraduate Researcher – SRM UROP Program — Chennai, India
SRM Institute of Science and Technology — 2025 – Present
- Conducting research on simulation-based autonomous systems using Unreal Engine 5 and Cosys AirSim.
- Developing reinforcement learning control policies for autonomous navigation tasks in high-fidelity simulated environments.
- Designing reward functions, state representations, and benchmarking policy performance.
- Optimizing real-time simulation pipelines and system-level performance.

TECHNICAL SKILLS

Programming: Python, C, C++, Java, Dart (Flutter), TypeScript
AI / ML: Machine Learning, Deep Learning, Computer Vision, RAG Systems, Model Training & Evaluation
Frameworks & Tools: React 18, Vite, Linux, UNIX, MySQL, Git, Unreal Engine 5, Cosys AirSim
Systems: Linux System Administration, Performance Optimization, Kernel Fundamentals

CERTIFICATIONS

LIVEWIRE (CADD Centre) — Salem
Course on Python — Sept 2023
- Credential ID: CO230528Z302734
- Show Credential

LIVEWIRE (CADD Centre) — Salem
Course on Java — Aug 2024
- Credential ID: CO230528Z302732
- Show Credential

SRMIST - School of Computing — Chennai
Linux Programming (Value Added Course) — Aug 2024
- Show Credential

LIVEWIRE (CADD Centre) — Offline
Data Science and Machine Learning — Aug 2025 – Present
- Ongoing

PROJECTS

Cattle-Go — –
Computer Vision • Deep Learning • AgriTech — –
- AI-powered livestock management system for Indian cattle breed classification using image recognition.
- Implements real-time detection, multilingual interface, and RAG-based advisory chatbot.
- View Repository

Drug MRP Price Prediction — –
Machine Learning • Data Analysis — –
- Predictive ML model for pharmaceutical MRP estimation using structured datasets.

- Performed preprocessing, feature engineering, training, and evaluation.
- [View Repository](#)

Padayappa Paarvai –
Software Tooling • Interactive UI –
- Web-based repository structure visualizer converting JSON folder trees into interactive hierarchies.
- Implemented search, filtering, and dynamic UI rendering for structured navigation.
- [View Repository](#)

Rule-Based Chatbot with UI –
React • TypeScript • Conversational Systems –
- Chatbot application built with React 18, TypeScript, and Vite featuring persistent conversations.
- Includes theming, animations, and structured rule-processing engine.
- [View Repository](#)

Simulation-Based Reinforcement Learning for Autonomous Systems –
Reinforcement Learning • Simulation • Control Systems   2025 – Present
- Research project developing reinforcement learning-based control policies in high-fidelity simulated environments.
- Utilizing Unreal Engine 5 and Cosys AirSim for environment modeling, physics-based simulation, and policy evaluation.
- Designing reward functions, state representations, and benchmarking performance across navigation tasks.

ACHIEVEMENTS

SRM SDG Hackathon – 3rd Place   Chennai
Organized by SRMIST   Nov 2024

NLH AI x Legal Hackathon – 2nd Runner-Up   Chennai
Madras Institute of Technology (Anna University)   Aug 2025

LANGUAGES
- English, Tamil, Hindi (Read & Write), Telugu (Elementary Proficiency)

INTERESTS
- Generative AI, Large Language Models (LLM)
- Kernel Development, System Performance Optimization, Software Development