

SANJAY KUMAR S sanjayksk1712@gmail.com +91 94870 44111 GitHub LinkedIn Portfolio	
EDUCATION SRM University, KTR, Chennai B.Tech in Computer Science and Engineering (AI & ML) Chennai, India 2023 – 2027 Current CGPA: 9.46	
EXPERIENCE IT & Systems Support Engineer MEDBE Pharma and Healthcare Cochin, India Partial Remote June 2025 – August 2026 Manage Linux-based IT infrastructure and technical operations for internal organizational systems. Support RBAC-based Linux environments used in billing, cash management, and operational workflows. Handle software deployment, system configuration, troubleshooting, and technical support for day-to-day business operations. Contribute to the development, deployment, and maintenance of medbe.in, the official web presence platform for MedBe Pharmacy.	
Undergraduate Researcher – SRM UROP Program SRM Institute of Science and Technology Chennai, India November 2025 – Present Develop reinforcement learning policies for autonomous drone navigation using Unreal Engine 5 and Cosys AirSim. Design reward functions, state representations, and evaluation metrics for simulated navigation tasks. Optimize simulation runtime performance and environment interaction pipelines. Conduct experiments on high-fidelity simulation environments for autonomous systems research.	
PROJECTS Frame Generator Computer Vision • GPU Systems • Annotation Tech Stack: Python / PySide6 / CUDA (NVDEC) / SAM 2.1 / Docker / FFmpeg / PyInstaller. Built a high-throughput TrackNet dataset workstation with CUDA/NVDEC extraction, dynamic resource profiling, fault-tolerant resume, persistent jobs, and 1,770+ FPS processing. Developed a 5-state annotation workspace with motion-blur handling, CSV synchronization, range inspection, dataset telemetry, and SAM 2.1 + Docker integration for semi-automatic tracking. Links: View Releases Windows x64 EXE Repository	
Aero-Controllers Reinforcement Learning • Robotics Tech Stack: Unreal Engine 5.5 / Cosys-AirSim / PPO (Stable-Baselines3) / Next.js / React / Three.js. Developed an RL-based autonomous drone stabilization framework using high-fidelity Unreal Engine simulation, with custom reward functions, state representations, and PPO control policies for GPS-denied environments. Built an interactive research documentation platform covering the simulation, training, and evaluation workflow. Links: View Releases Live Demo Repository	
LLLMao Local AI • Systems • DevOps Tech Stack: React / TypeScript / FastAPI / ChromaDB / Tauri (Rust) / Ollama / SQLite. Developing a privacy-first local AI workstation combining local LLM inference, RAG, document ingestion, vector search, FastAPI services, and a Tauri desktop interface. Supports Linux-focused deployment with containerized/local services and Ubuntu Snap packaging. Links: View Releases Repository	
Cattle-Go Computer Vision • Deep Learning Tech Stack: Flutter / FastAPI / TensorFlow-Keras (MobileNetV2) / Firebase / Hugging Face Spaces / Ollama. Built an AI livestock breed classification system for Indian cattle using MobileNetV2, with real-time detection, multilingual support, and an Ollama-powered RAG assistant. Links: View Releases Android APK API Status Repository	
GigShield (CampTech) Full-Stack • AI/ML Tech Stack: Flutter / FastAPI / SQLAlchemy / JWT / SQLite / Open-Meteo / OpenWeather AQI / OpenRouteService. Developed an AI-powered parametric insurance platform using live weather, traffic, and AQI data for dynamic risk assessment, automated claims processing, and fraud detection. Links: View Releases Android APK Repository	
TECHNICAL SKILLS Programming: Python, Dart, C, C++, Java, TypeScript Systems: Linux System Administration, Performance Optimization, Kernel Fundamentals, UNIX, RBAC Systems Frameworks & Tools: React, Vite, Flutter, FastAPI, Linux, Git, Unreal Engine 5, Cosys AirSim, Isaac Sim AI / ML: Machine Learning, Deep Learning, Reinforcement Learning, Computer Vision	
ACHIEVEMENTS SRM SDG Hackathon – 3rd Place Organized by SRMIST Chennai Nov 2024 NLH AI x Legal Hackathon – 2nd Place Madras Institute of Technology (Anna University) Chennai Aug 2025	
CERTIFICATIONS SAP Certified – Generative AI Developer View Credential (2026) Course on Java – LIVEWIRE View Credential (Aug 2024) Languages: English, Tamil, Hindi (Read & Write), Telugu (Elementary Proficiency)	
Course on Python – LIVEWIRE View Credential (Sept 2023) Linux Programming – SRMIST View Credential (Aug 2024) Interests: Systems Engineering, Linux Infrastructure, Autonomous Systems, Kernel Development, Performance Optimization, Local AI Systems, Computer Vision	