KAMAL JEYARAM T

+91 90259 00546 ◇ Chennai, India
kamaljeyaram07@gmail.com ◇ linkedin.com/in/kamal-jeyaram ◇ github.com/kamaljeyaram

EDUCATION

Bachelor of Engineering in Computer Science and Engineering (IoT) *2022–2026*
Sri Sairam Engineering College, Chennai — **CGPA: 8.03/10**

Higher Secondary (Class XII) *2022*
Velammal Main School, Chennai — **Percentage: 78.6%**

Secondary School (Class X) *2020*
MR School, Chennai — **Percentage: 89.16%**

SKILLS

Technical Skills: Python, AWS, Linux, Sql, IoT
Tools Platforms: Git, VS Code, Arduino IDE, MySql

EXPERIENCE

Computer Vision Engineer - Intern May 2025 – July 2025
Aioty Labs, Client Project for **Royal Enfield** *Chennai, India*

- Architected a real-time workplace monitoring system deployed across **5+ assembly stations**, enhancing visibility into worker activity and safety compliance.
- Delivered **95%+ face recognition accuracy** using **InsightFace**, enabling secure and automated employee verification.
- Mitigated overcrowding risks using **YOLOv8**, decreasing workstation congestion by **30%** through ROI-based occupancy detection.
- Embedded **YOLOv8 Pose Estimation** to evaluate posture and hand dynamics; boosted working time estimation accuracy by **40%** via waistline shift and hand-raise tracking.
- Validated the end-to-end system with **10 employees** in a live industrial environment, demonstrating real-time performance and reliability.

PROJECTS

Smart Patient Monitoring System

- Built real-time monitoring system using **MAX30102** & **MLX90614** to track **SpO_2**, **BPM**, and **temperature**.
- Developed **Node.js** backend (hosted on **Render**) to collect and process sensor data.
- Integrated **Gemini API** chatbot for health-related queries (diseases, medications, general info).

Fertile Future

- Designed low-cost **F/L OM nutrient kits** (500/unit) using **visible light spectroscopy**.
- Used **3-wavelength LEDs** and **50+ lab samples** to estimate **N, P, K, pH, Ca** with **85%+ accuracy**.
- Field-tested on **10 farms**, targeting **1000+ small-scale farmers**; improved yield planning by **30%**.

Smart Aquaponics System

- Built solar-powered IoT system with **NodeMCU** and **YOLOv5** for fish disease detection.
- Monitored water parameters via sensors; implemented **Node.js** server and multi-level alert system.

ACHIEVEMENTS

- **Smart India Hackathon 2024 – Finalist (Top 1%)**
  Selected out of **50,000+ teams**, for proposing a cost-effective F/L OM nutrient analysis kit.
- **1st Runner-up, Project Expo** Showcased an IoT-based aquaponics automation system integrating water quality monitoring and AI-driven disease detection
- **Top 60, Circuit Digest Challenge (2024)**
  Ranked in top **60/2500**+ entries for Intelligent Hospitalization System design with edge computing integration.
- **Winner, Solvethon – Sri Sairam Engineering College (2023)**
  Developed a real-time hospitalization system reducing nurse response delay by **20+ seconds/patient**.

COURSES AND CERTIFICATIONS

- **Cisco Netacad:** Python Programming, Networks (CCNA Modules 1–3)
- **NPTEL (2024–2025):** Cloud Computing — Top 10% scorer in course assessments

PUBLICATIONS

- **Patent Published:** *Solar-Powered IoT Aquaponics Monitoring with ML* — Indian Patent App. No. **20241083944**
- **Patent Published:** *Intelligent Hospitalization System* — Indian Patent App. No. **202441084048**