SIDDARTH THANGARAJ

AI/ML Engineer | Computer Vision & Applied Machine Learning

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OBJECTIVE

Recent B.Tech graduate in Artificial Intelligence and Machine Learning seeking AI/ML internship or full-time opportunities. Experienced in building and deploying end-to-end ML systems specializing in computer vision, semantic search and NLP with a funded, government-recognized project and deployed applications.

SKILLS

AI / Machine Learning: Machine Learning, Computer Vision, TensorFlow, OpenCV, YOLO / Object Detection, scikit-learn, Natural Language Processing
Languages: Python, Java, SQL
Web / Backend: Flask, React.js, Node.js, REST APIs, HTML, CSS
Databases & Tools: MongoDB, MySQL, Git, Gunicorn, Cloud Vision/Speech APIs

EXPERIENCE

Computer Vision Developer — MSME Idea Hackathon 4.0
Ministry of MSME, Government of India

- Selected as a finalist to pitch Smart Bin, an AI-powered waste segregation system, to national MSME evaluators; project received ₹8 Lakhs in government funding support
- Built and trained a YOLO-based object detection model for real-time waste classification, and developed the OpenCV inference pipeline for live video processing
- Owned dataset collection and preprocessing — labeling and augmenting a custom waste-image dataset used for model training

PROJECTS

Smart Bin — AI-Powered Waste Management System
Computer Vision Developer

- Built a real-time waste classification system using a YOLO-based detection model and OpenCV for live video inference
- Trained and fine-tuned the model on a custom-labeled waste dataset; handled preprocessing, labeling, and augmentation
- Selected for MSME Idea Hackathon 4.0 (Ministry of MSME, Govt. of India) — awarded ₹8 Lakhs in funding

ResearchAI — AI-Powered Research Paper Discovery

- Built a semantic search and ranking engine using scikit-learn and NumPy to score and cluster academic papers by topic relevance
- Integrated arXiv and OpenAlex APIs for live paper metadata; built category filtering and relevance/date sorting
- Built the backend with Python/Flask and deployed to production with Gunicorn

Live demo: researchai-ham2.onrender.com • **Code:** github.com/Siddarth305/ResearchAI

TruthLens — AI News Analyzer

- Trained a text classification model using TF-IDF vectorization and Logistic Regression to detect fake news patterns
- Integrated NewsAPI for live news search and analysis, returning predictions with confidence scores
- Built the full-stack app with Flask, HTML, CSS, and JavaScript; deployed to production with Gunicorn

Live demo: truthlens-ai-7t82.onrender.com • **Code:** github.com/Siddarth305/TruthLens-AI-News-Analyzer

EDUCATION

M. Kumarasamy College of Engineering, Karur — May 2026
B.Tech, Artificial Intelligence and Machine Learning — GPA: 7.5 / 10.0

Bharatiya Vidya Bhavan MHSS — May 2022
Higher Secondary — Computer Science — 80%

ADDITIONAL INFORMATION

Languages: Tamil, English, Japanese (JLPT N4)
Soft Skills: Problem Solving, Adaptability, Teamwork, Time Management