Ayush Sai

+91 81303 59286 | portfolio-ayushsai.app | ayxshsai@gmail.com | linkedin.com/ayush-sai
github.com/Ayxsh03 | leetcode.com/Ayxsh07

INTERNSHIP

Artificial Intelligence Intern June 2025 – Aug 2025
Fourth Partner Energy Private Limited *Gurugram, IN*

- Designed and built an end-to-end AI CCTV surveillance pipeline to curb solar-panel theft, targeting 50% cut in guard workload and 90% theft detection accuracy once fully deployed.
- Selected and optimised InsightFace "Buffalo"(face) and YOLOv11(person) models, sustaining 20 FPS inference on CPU-only edge devices by pruning weights and parallelising video I/O, eliminating the need for costly GPUs.
- Developing a real-time intrusion alert system with automated alerts and notifications to enhance perimeter security at a solar power facility.

PROJECTS

Football Analysis | *Python, OpenCV, TorchReID, Scikit-Learn, Data Visualization* April 2025

- Built an end-to-end football analytics system using AI & computer vision tools to detect, track, and analyze.
- Raised detection accuracy from 80% to 95% by training a YOLO-v11 model on 670 labeled images.
- Implemented ByteTrack for multi-object tracking and added Player ReID to maintain identity for players re-entering the frame.
- Automated team classification using K-Means clustering on jersey colours.

Personal AI Assistant | *Python, scikit-learn, SpeechRecognition, openai, github* Dec 2024

- Forged a voice-controlled AI assistant leveraging scikit-learn for intent classification, increasing the speed of response time by 60% and improving overall system efficiency.
- Trained a custom Machine Learning model for intent classification, supporting actions like fetching weather reports, latest news, telling jokes, and opening apps.
- Pioneered a strategy for API integration, sourcing the most relevant APIs to improve the accuracy of responses, and cut down AI assistant response times to under 2 seconds.

DigiCam-Classifier | *Python, Keras, TensorFlow, OpenCV* Sept 2024

- Created a CNN that reads and predicts handwritten digits at 98%+ accuracy.
- Improved reliability to less than 1% error rate after fine-tuning with the MNIST dataset.
- Optimised it to run in real time at 40 FPS using OpenCV, numbers are labelled accurately within 2 seconds.

TECHNICAL SKILLS

Languages: Java, Python, C++, MySQL, HTML, CSS
Frameworks: PyTorch, TenserFlow, Keras, OpenCV, Scikit-learn, Hugging Face, Django
Developer Tools: Git, GitHub, Docker, VS Code, PyCharm, Jupyter NB
Technical Proficiency: DSA, Machine Learning, DBMS, OOPS, Operating Systems

EDUCATION

K.R. Mangalam University Gurugram, IN
B. Tech in Computer Science Engineering, CGPA: 8.57 *Aug 2022 – July 2026*

St. Paul's School New Delhi, IN
Class 12th: 96.4% *April 2018 – March 2021*

ADDITIONAL INFORMATION

GATE DA 2025: Qualified GATE Data Science And Artificial Intelligence 2025.
LeetCode: Ranked in the Top 15% in Contest Rating and Solved 300+ Problems.
AI and Drone Workshop, IIT Mandi: Learned basics of integrating computer vision and AI techniques into drones in the Drone Technology Bootcamp organised by C.O.E. in AI, IIT Mandi.
Soft Skills: Problem Solving, Critical Thinking, Communication Skills, Team Player