

AI Internship Assignment - Player Re-Identification

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Task Chosen: Option 2 - Player Re-Identification in a Single Video Feed

Company: Liat.ai

Project Overview:

This project identifies and tracks football players within a 15-second match video using YOLOv11. Each player is assigned a unique ID, and when players move out of frame and return, the system maintains their identity consistently.

Tools & Technologies:

- Python
- Ultralytics (YOLOv11)
- OpenCV
- NumPy

Approach:

1. Used YOLOv11 model to detect players in every frame.
2. Calculated center points of detected players.
3. Used position matching logic to re-identify players when they re-enter the frame.
4. Displayed bounding boxes and player IDs on the video.
5. Saved the output video as `output_with_ids.mp4`.

Output:

The output video shows the AI detection system identifying and labeling players consistently throughout the video.

Model Used:

YOLOv11 provided in the assignment drive link.

