Cross-Camera Player Mapping - Report

Approach and Methodology

- Used YOLOv11 model to detect players in both broadcast and tacticam videos.

- Used Deep SORT for tracking individual players across frames in each video.

- Mapped players from tacticam to broadcast view by maintaining a consistent player ID.

Techniques Tried

- Player tracking using Deep SORT.

- Matching based on temporal consistency and unique tracking ID.

Challenges Encountered

- Ensuring synchronization between two video feeds.

- Matching players between views without jersey numbers or clear facial features.

- Handling occlusions and camera motion.

Remaining Work

- Improved player matching using embeddings or pose-based features.

- More robust feature matching (e.g., jersey color, gait).

- Frame-level synchronization improvements.