Cricket Ball Tracking System

Technical Report

Project: EdgeFleet AI/ML Assessment
Date: February 2026
Status: Production-Ready

System Overview:

This is a comprehensive computer vision system to detect and track cricket balls in videos recorded from a fixed camera using YOLOv8, ByteTrack, and Kalman filtering.

Key Components:

• YOLOv8 Nano for real-time ball detection
• ByteTrack for consistent object ID tracking
• Kalman Filter for trajectory prediction

Output Formats:

✓ CSV annotations (frame, x, y, visible)
✓ Processed MP4 videos with trajectory overlay
✓ Evaluation metrics and analysis

For full technical details, see TECHNICAL_REPORT.md