Athlete Detection &Tracking

Person Recognition in Sports

e Sided

Quick Summary

By implementing a sophisticated Person Recognition system in sports, especially athletics, we were able to accurately detect and identify registered athletes from marathon video feeds. This led to enhanced efficiency and a significant increase in productivity.

The Tech Stack

- **Python** to establish data pipelines from the surveillance footage
- **Keras** for processing the data, including person detection and tracking
- **Power BI dashboard** for real-time data visualization
- **AWS** facilitates data storage and model deployment

Ready to Start?

Begin today on your journey to improve efficiency and productivity. Our engagement model ensures minimal risk with a refundable deposit. If any critical issues occur during the development, your deposit will be fully refunded. Once the Proof of Concept stage is reached, the deposit will be part of the overall project cost.

The Problem

In athletics, particularly in marathon events, detecting and identifying athletes amidst a large participant pool is a daunting task. Manual identification is time-consuming and prone to errors, thus creating a need for an automated and reliable recognition system.

The Solution

To address this, our team developed a cutting-edge Person Recognition system. Operating on an i7 system without a GPU, this system uses advanced machine learning techniques to identify registered athletes from video feeds with a brilliant 97% accuracy at 7 frames per second. It accomplishes this by detecting and reading bib numbers and executing facial recognition. Once an athlete is detected, the system clips out a short video from the time the athlete enters the frame until the exit, giving a seamless view of each participant's performance.

The Outcomes

- 200% improvement in efficiency, significantly reducing the time and effort required for athlete detection and identification.

- 97% accuracy in detecting registered athletes, thereby minimizing errors or confusion.

- Streamlined access to individual athlete performance clips from entering to leaving the scene.