



## Company

PlayerStatData Ltd  
[www.playerstatdata.com](http://www.playerstatdata.com)



*“The Nimbus Gateway AI team have been ground-breaking for us.*

*We have achieved so much progress in such a short space of time. The quality of this research output has definitely made our company more competitive.*

*We look forward to further projects with Nimbus”.*

Colin Brett,  
CEO & Founder  
PlayerStat Data Ltd



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PROJECT NAME:

# Vision-based AI for Self-Supervised Soccer Pitch and Player Metadata Detection

## PROBLEM TO BE SOLVED

Suir Analysis Ltd t/a PlayerStatData Ltd is a wholly owned Irish consulting company that offers a player development data platform for soccer clubs and academies, focused on U13-U19 age groups. Targeted at key player development figures at soccer clubs and academies, the 360-degree performance data platform allows objective player monitoring across operations.

The application of computerised video analysis, for the purpose of tracking and localisation of soccer players in relation to the ball, to match footage is a very useful tool to coaching and backroom staff. Consequently, the players and ball are the most important objects within soccer game footage. However, detecting is a challenging and cumbersome task due to the many inherent difficulties, such as shadow and illumination, ball size, familiar or foreign objects resembling the ball, partial view – i.e., the ball overlapping with players or merged with field lines, or may disappear from view - hidden in the stadium or flying on air, and similar appearance of players, etc.

## SOLUTION

In conjunction with the Nimbus AI team, PlayerStatData are currently developing a proof-of-concept prototype to advance the interoperability their AI-based platform for game footage analysis on a number of fronts. Some key stages include:

- A review of object detection techniques and Python-based libraries for soccer analysis.
- Object detection algorithms for players and balls in soccer videos.
- Development on pitch detection algorithms for image segmentation.
- Custom model training for Irish-specific data.