

Informatics Institute of Technology

In Collaboration With

University of Westminster, UK

BEng. (Hons) in Software Engineering

Final Year Project 2019/20

Winning Eleven: Scout Evaluation and Analysis to Enhance  
Football Player Recommendations

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Submitted in partial fulfillment of the requirements for the  
BEng (Hons) Software Engineering Degree Department of Computing  
May 2020

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## **Abstract**

Football, one of the most popular sport followed by around 3.5 billion fans all over the world. Club football is the most popular format of the sport despite the world cup which happens once every four years. The goal of any football club is to win matches and to win the league of thirty-eight games by coming first in the rankings. Due to the huge popularity of this sport, the money that gets generated is incomparable to any other sport. Due to high rewards football clubs are required to have highly skilled players who can perform and generate more revenue through ticket sales, merchandise, trophies, etc. Every club has a fair share of both youth and veteran players. Every player's development slows down after a certain age and then the club is forced to replace them with younger players. The process of identifying suitable younger players for clubs is called scouting. This process is hugely affected by human bias. There have been countless examples of questionable player transfers in the past. Furthermore, due to uncertainty in the economic climates like inflation and plagues like COVID-19 has forced clubs to spend money wisely and purchase players for the club based on statistics with the help of technology. This project proposes an automated recommendation system that involves machine learning concepts to help clubs accurately identify aging and underperforming players who need to be replaced and recommends young players who can replace them. The *Winning Eleven* system analyses player performances using a decade of actual football data which is comprised of different technical aspects of a footballer. The system uses a combination of multiple machine learning algorithms to analyze and make accurate predictions.

**Keywords:** Recommendation System, Machine Learning, Regression, Classification