

**PREDMOB: DECISION SUPPORT SYSTEM FOR
LA LIGA PLAYER RECOMMENDATION**

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ABSTRACT

The world of soccer is constantly changing, and with the growing competition, teams are always on the lookout for talented players to improve their performance. However, identifying the right players to fit into a team can be a challenging task. In this thesis, Author propose a decision support system for player recommendation in La Liga, Spain's top-tier soccer league. Aim of this system is to help to teams make decisions by using machine learning algorithms to predict a player's position based on their statistics.

To solve this problem, Author developed a system that utilizes a Random Forest classifier to predict a player's position based on various statistics, such as goals, appearances, and successful passes, among players. Author preprocessed the data to handle missing values and scale the features before training the model. The accuracy score generated by the model on the test set was 85%, which is a promising result for our system.

Author evaluated the performance the system using various data science metrics, such as accuracy, precision, and recall. The precision score, which measures the proportion of correctly predicted player positions out of all predicted positions, was 84%, while the recall score, which measures the proportion of correctly predicted player positions out of all actual positions, was 83%. Overall, our system's performance shows promising results, and it can be a valuable tool for teams in La Liga to identify and recruit talented players.

Keywords: La Liga, soccer, Football, Decision support system, Player recommendation, Machine learning, Random forest, Data science