RECOMMEND A SUITABLE PLAYER TO SELECT OR BID IN THE IPL AUCTION

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Abstract

The Indian Premier League is rapidly becoming one of the most widely watched and talked-about cricket format in the world. In IPL When putting together a squad the combination of international players and which players will play together are essential. However, many other organizational issues need to be considered before making any decision regarding the player selection in auction. This makes the process difficult for franchises and coaches. In recent decades, player selection and alteration have become highly publicized and contentious issues while bidding players in the auction. The selection process is conducted manually by former cricket players and cricket specialists. Due to its reliance on personal intuition, while bidding on the players in the auction, if the player sells out unexpectedly or the money to bid the player is insufficient, then finding a suitable player to bid in the auction is a challenging mission for the team management.

The main purpose of this research is to implement a machine learning model to select and recommend the fitting top-ranking players list based on performance will highlight the players to bid quickly. To consider all the best batting features of the players, the author came up with a statistical point generating formula approach. Additionally, build players overall, away, home, and recent performance calculation in four different model categories to achieve the accurate points-based performance ranking and recommendation for the players. Therefore, established a novel ensemble model approach, which is able to produce reliable predictions by utilizing the best key qualities of multiple machine learning methods.

Experiment results demonstrate that Decision Tree, XGB and Random Forest gave the expected outcome in the initial stage. Hence, Gradient Boosting performed impressive R2 Score of 96.42% for overall and 98.03% for home performance, 98% for recent and away performance, with RMSE 2.57 & MAE 1.29. Thus, IPL selection committee professionals can use the applicable approach to make tactical judgments, construct unique training sessions, and direct market selections.

Keywords: Machine Learning, XGB, IPL Auction, Points based ranking, Boosting, Recommend, Cricket

Subject Description:

Computing methodologies → Machine learning → Machine learning algorithms → Ensemble methods