HOOP INSIGHT: A PLAYER RECOMMENDATION AND SCORING SYSTEM FOR BASKETBALL

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ABSTRACT

This study describes a basketball player recommendation application that uses machine learning algorithms to identify the best players at each position. The program was constructed utilizing both the decision tree and random forest algorithms, and a distinctive scoring system was designed with input from subject-matter experts and in-depth investigation. The best five basketball players at each position were chosen using the scoring method. Users can also enter a new player's statistics to find out where on the basketball court they will be most effective.

For a number of factors, this player recommendation software is a useful addition to the basketball world. First, it offers a data-driven, objective method for recommending players, which can aid coaches and team managers in selecting players for specific positions. This is especially helpful considering the enormous quantity of data that is accessible in basketball, which may be challenging to evaluate and make sense of without the aid of machine learning algorithms.

Second, the application's distinctive scoring system was created with assistance from experts in the field of basketball and extensive research regarding basketball player statistics and they effect the game, ensuring that it appropriately reflects the traits and abilities that are crucial for each position in basketball. This increases the application's recommendations' dependability and credibility, which is crucial in a sport where player positions can significantly affect how well a team performs.

Finally, the program's capacity to anticipate a new player's best position based on their data can assist clubs and coaches in spotting outstanding players who might not have been given serious consideration for the most suitable position. This may result in a more varied and interesting pool of players, which would be advantageous for the sport as a whole.