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Predicting Player Performance for the Indian Cricket Team Based on Historical Data Using ML

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Abstract: *Predicting player performance is a critical aspect of modern cricket analytics, enabling data-driven decisions in team selection and match strategy. This paper presents a machine learning-based framework to predict the performance of Indian cricket team players using historical match data. The system extracts player statistics, match conditions, and opposition characteristics to build predictive models using algorithms such as Random Forest, Support Vector Machines, and Gradient Boosting. The models are trained and validated on real-world datasets sourced from past international matches. Experimental results demonstrate promising accuracy in forecasting player contributions in upcoming games. The system has potential applications in player scouting, performance evaluation, and enhancing strategic planning. Future enhancements include real-time prediction integration and expanded datasets to further improve reliability and scope.*

Keywords: Cricket Analytics, Player Performance Prediction, Machine Learning, Indian Cricket Team, Data-Driven Selection, Match Strategy, Sports Intelligence, Supervised Learning, Predictive Modeling, Performance Forecasting

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