

Lab 5B - Annotation, Summary, and Preparing to Use a Source

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Kapadia, K., Abdel-Jaber, H., Thabtah, F., & Hadi, W. (2020). Sport analytics for cricket game results using machine learning: An experimental study. *Applied Computing and Informatics*, (ahead-of-print).

Annotations

- Nimmagadda et al. applied statistical techniques to predict a T20 match result
- Multiple regression model is tested to develop a prediction model
- Logistic Regression with multi-variable linear regression and Random Forest
- Anaconda and Python libraries like pandas, NumPy and IPython
- The main result obtained was based on the impact of toss winner
- The model predicted score and run rate projected score were quite near to the final score

Summary

Sport analytics is the study of recording, analyzing and modelling performance data from sport events to improve player training, team management and spectator experience. This paper investigated how machine learning can be used to predict cricket game results using a dataset collected over a period of 10 years (From 2008 to 2017) (Kapadia et al., 2020). The aim is not only to develop predictive models that could be subsequently used by whoever has access to this data but also explore interesting ways in which support vector machines (SVMs) or other types of linear regression models might work better than existing linear classifiers when faced with such a high-dimensional problem as predicting cricket game results.

A home team advantage subset and a toss decision subset were developed as two prominent subsets. On both feature sets, a predictive model was created using a few machine learning approaches. In experimental studies, tree-based models, in particular Random Forest, outperformed probabilistic and statistical models in terms of accuracy, precision, and recall measures (Kapadia et al., 2020). However, none of the machine learning techniques under consideration did well in terms of building precise predictive models on the Toss featured subset.

Review

In my view the article looks sound. The use of machine learning to predict the outcome of a Cricket game is a promising approach. It is possible to use data from past games to improve the accuracy and performance of the model. This approach has the potential to improve the accuracy of predictions and help fans better understand the game. The article

provides a critical review of sport analytics for cricket game results using machine learning. The author presents the main challenges faced in data pre-processing and classification, as well as introduces some promising methods that have been used to overcome these challenges. Overall, the article does a good job at introducing key concepts and highlighting recent advances in this field (Jhanwar, 2016).

Although machine learning has existed for quite some time, its application in cricket has been limited to a very few areas such as batting or bowling. I would suggest that its usage in cricket game results could be expanded to other areas such as fielding and strategic planning. This would help cricketers to make better decisions and improve their performance on the field. The article provided a good overview of sport analytics and its potential applications in cricket. It provides an overview of the different types of machine learning algorithms that could be used to analyze cricket game results. It also provided a good overview of the potential benefits of using this technology in cricket. Overall, the article provided a comprehensive and well-written review of the topic.

Bibliography

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