

K-MEANS CLUSTERING BASED RANKING SYSTEM TO SELECT BEST PLAYERS AMONG DOMESTIC CRICKETERS

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Abstract

Data science is a wide field of study that consist of data systems and processes that aims to use a scientific approach to maintain data sets and derive meaning from data. On the other hand, Machine Learning is the techniques used by data scientists which enables the computers to learn from data. Machine Learning is a part of Data Science. A vast mathematical knowledge and experience is needed when dealing with machine learning projects with complex algorithms.

Clustering in Machine Learning is a type of unsupervised learning method. Generally, clustering helps to identify meaningful structures in data sets, generative features and grouping inherent data sets. After clustering data into groups, data points in one group will be different from the others while points in the same group will be similar to other data points.

K-means is a very popular and simple unsupervised machine learning algorithm which is used in clustering. This will identify k number of centroids and allocate the data points to the nearest cluster while making sure that the centroids are kept as small as possible.

In this research the author was able to come up with a K-means cluster based player ranking system for domestic cricket in Sri Lanka. While there are other systems, they're not suitable for domestic level. Through this method the author was able to group players according to their strengths using clustering which will be very useful in selection process.

This will be hopefully useful to select players into the national team in the future in an unbiased way and expand to school level with other enhancements.

Keywords: K-means, Clustering, Machine Learning, Domestic Cricket, Player selection system, player ranking