

Preface

The game of cricket is the second most popular sport in the world after football. This sport has billions of fans across India, Australia, Pakistan, England, South Africa, etc. It is an outdoor sport which is played inside the stadium on a cricket field or pitch which is in the shape of a rectangle and is 22 yards long. We found that the factors such as stitching, seam, pitch and weather conditions played an important role for choosing the type of red cricket ball for playing test matches in different countries.

Convolutional Neural Network (CNN) is a multi-layer feed-forward neural network which helps us in extracting the useful information from a given set of input data. We use a back-propagation algorithm for training the CNN algorithm. This algorithm has the ability and capability for analysing high-dimensional image data, learn complex processes.

The testing models that were built for doing binary-class classification did give us excellent results. All the three testing models gave us an accuracy of 0.9506, 0.9259, and 0.9625. The final classification model using which we had performed multi-class classification gave us an accuracy of 0.9008.

Deep learning, which is considered to be a branch of machine learning, has become one of the emerging concepts in today's world because of its ability to handle high-dimensional image data, which is considered to be complex data for analysis.

The objectives that were set by us for doing this study were clearly met.