A Custom Convolutional Neural Network with Hue, Saturation, Value Color for Malaria Classification

Authors : Ghazala Hcini, Imen Jdey, Hela Ltifi

Abstract : Malaria disease should be considered and handled as a potential restorative catastrophe. One of the most challenging tasks in the field of microscopy image processing is due to differences in test design and vulnerability of cell classifications. In this article, we focused on applying deep learning to classify patients by identifying images of infected and uninfected cells. We performed multiple forms, counting a classification approach using the Hue, Saturation, Value (HSV) color space. HSV is used since of its superior ability to speak to image brightness; at long last, for classification, a convolutional neural network (CNN) architecture is created. Clusters of focus were used to deliver the classification. The highlights got to be forbidden, and a few more clamor sorts are included in the information. The suggested method has a precision of 99.79%, a recall value of 99.55%, and provides 99.96% accuracy.