CONCLUTION

In this study, we accomplished basic color analysis meant for any further application. This analyzation method is optimized by preprocessing image file into counted RGB values, greatly reducing overall time consumption while optimizing data density. The customizable color-set gives great control over amount and precision of result, which may be needed by some further applications. In the preprocess method, fine tune to the image can be added for controlled complexity and information amount. Moreover, it supports custom defined color-set to limit results, and to add nicknames for recognition. The matching function uses KNearestNeighbor Classifier, which each color is guaranteed for its closest match. This approach also takes advantage of the simplicity of KNearestNeighbor Classifier, saving unnecessary computation. LogisticRegression Classifier is also implemented, but can’t take advantage from preprocessed image, and will instead perform better with raw image data. Final results are reorganized into names of color and its amount, which is simpler for any further processing.