MSc Project Report

Classification Model for Tea Bud(s) Classification Using Neural Networks

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2019

A report submitted as part of the requirements for the degree of

MSc in Computing: Software Technology at Robert Gordon University, Aberdeen, Scotland

Abstract

The countries like China, Kenya, and Sri Lanka are big tea producing countries in the world. There are problems associated with tea picking such as no selectivity for tea leaves, the integrity of tea buds cannot be guaranteed, and the picking standards of conventional teas cannot be achieved. Further, the conventional tea should be picked at a specific time period. However, the labor force in industry is in short supply as a result of the increasing proportion of the industrial economy in the gross national product in tea producing countries. The countries can generate huge economic benefits with the improvement of the efficiency of picking conventional tea during the tea picking period. The objective of this research is to design, develop and evaluate a model which identify and predict the suitability of tea buds for the picking as a solution of aforementioned problems. To do this need to visually identify the suitable and unsuitable tea buds for picking. After that have to create image samples. Then the image samples have to be preprocessed to identify the hyper parameters. After that, identify the best combination of hyper parameters. Finally, evaluate the optimal trained model using test data. The results show that the accuracy of the model is 64.25%.

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Keywords: Deep Learning, Deep Neural Network, Tea Buds, Image Classification.