ABSTRACT

Along with current technological developments, technology is usually a means of obtaining information. Searching for information has often been done in everyday life, namely by using search engines. For example, in the clothing industry when searching for the desired clothing product through search engines, expecting the results obtained from search engine searches are under complete details regarding the reference to the clothing product brand. However, the text-based search method has limitations to the results obtained from search engine searches are not always accurate. For this reason, Convolutional Neural Network (CNN) is used to compile a dataset of clothing products based on the classification of the images entered.

This study aims to be able to create a website-based image search engine system using the architecture of CNN, namely the Deep Residual Network (ResNet) especially on ResNet50 which can classify images from clothing products, by inputting images and producing output in the form of complete categories of product brand references on the clothes, using Long Short Term Memory (LSTM) in predicting the results. The test results obtained are 99.47% for train accuracy and 99.61% for validation which will be used when implemented on the website.

Keywords: *Convolutional Neural Network, ResNet50, Long ShortTerm Memory*