

## **ABSTRACT**

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### **USING DECISION TREE-BASED DATA MINING TO PREDICT TYPES OF APPARELS**

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Data mining has been proven to be a powerful way of processing large amounts of data into useful information. Every day, the clothing industry generates a vast quantity and variety of data. When used wisely, this data will help solve a wide range of problems and questions for the industry. This study uses the clothing industry's product data, obtained from an open-source database. The data contains key points of information such as the cut, shape, print, texture, style, etc. The aim of this study is to use one data mining techniques, the decision tree, on the DeepFashion data to construct a classification model that categorizes the clothing into three categories: Bottom, Top, and Whole. The open-source data consists of 20,000 apparel images, 50 apparel categories, also 26 apparel features. The data was split twice. The secondary split is used to find the best classification tree parameter. For this, this study used two systems of parameter tuning; manually by loops and automatically using GridSearchCV. The results are then input back into the main data to find the final model. It has reasonably good accuracy of 84%.

Keywords : decision tree, classification, data mining, big data, python

Reference : 8 (2011-2020)