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An Overview of ML-Based Fashion Enquiry System

Prof V K Parvati[1], Bhagyashree Aramani[2], Nandini Ullegaddi[3], M Niveditha[4]

[1, 2, 3, 4]Department of Information Science and Engineering, SDM College of Engineering and Technology, Dharwad, 580002, Karnataka, India

Abstract: A class of deep neural networks that give the most rigorous effects in solving real-world problems is a Convolution Neural Network (CNN). Online fashion market is constantly growing, and an algorithm capable of identifying garments can help companies in the clothing sales sector to understand the profile of potential buyers and focus on sales targeting specific niches, as well as developing campaigns based on the taste of customers and improve user experience.

I. INTRODUCTION

Fashion businesses have used CNN on their e-commerce to solve many problems such as clothes recognition, clothes search and recommendation. A core step for all of these implementations is image classification. However, clothes classification is a challenge task as clothes have many properties, and the depth of clothes categorization is highly complicated. This complicated depth makes different classes to have very similar features, and so the classification problem becomes very hard. For humans, it does not take too much effort to tell apart trousers from a sweater or to recognize the outfit of a person. However, assigning features in an image to a certain category is still a hard problem to solve for computers. On Facebook alone, about 350 million images are loaded every day, and many of them contain fashion objects or apparel. With the continuously increasing amount of data, it is crucial to automatically extract information out of image data.

II. METHODS AND METERIAL
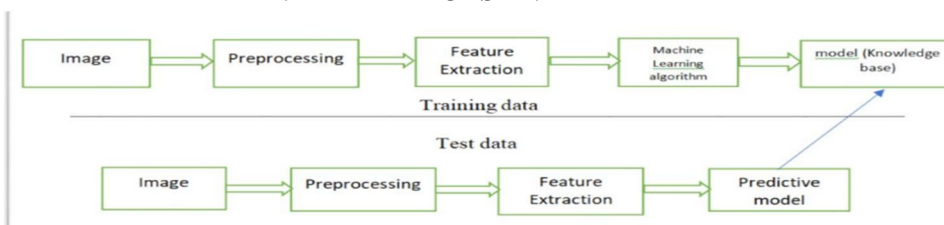
III. DATASETS

IV. RESULT AND DISCUSSION

1) Customer gets benefited as they can search their particular item present or not.
2) Malls & other shops can also maintain their stocks easily.
3) Labor cost can be reduced , Customer search time can be reduced.

Output 1 :

```
[INFO] loading and preprocessing image...
ID: 0, Label: Ankle boot 10.19%
ID: 1, Label: Bag 4.32%
ID: 2, Label: Dress 5.62%
ID: 3, Label: Pullover 1.19%
ID: 4, Label: Sandal 75.24%
ID: 5, Label: t-shirts 3.43%
Final Decision:
.
..
...
ID: [0 0 0 0 1 0], Label: Sandal
```


Output 2 :

```
[INFO] loading and preprocessing image...
ID: 0, Label: Ankle boot 1.38%
ID: 1, Label: Bag 1.41%
ID: 2, Label: Dress 84.71%
ID: 3, Label: Pullover 1.4%
ID: 4, Label: Sandal 2.34%
ID: 5, Label: t-shirts 8.76%
Final Decision:
.
..
...
ID: [0 0 1 0 0 0], Label: Dress
```


V. CONCLUSION

Conclusion on overall, The Project has achieved its objectives. Our model has trained and tested successfully with accuracy for more than 90 %. And by Using Image Processing and Machine Learning Algorithms we can detect the particular type of cloth (whether the given item is shirt, coat, bag etc).By developing this project growth of business can be observed, Labor Cost can be reduced, Customers Search Time can be reduced. In summary, the thesis emphasizes the importance of real-time Deep Learning system in solving real-world problems. Real-time technology has been playing an indispensable role in human life and now, with artificial intelligence embedded to it, thousands of opportunities have just arisen

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