iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 11 **Issue:** V **Month of publication:** May 2023

DOI: https://doi.org/10.22214/ijraset.2023.53446

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 11 Issue V May 2023- Available at www.ijraset.com

An Overview of ML-Based Fashion Enquiry System

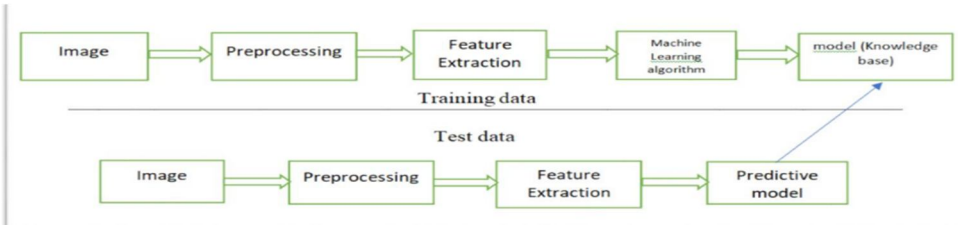
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***Abstract:** A class of deep neural networks that give the most rigorous effects in solving real-world problems is a Convolution Neural Network (CNN). Online fashion market is constantly growing, and an algorithm capable of identifying garments can 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



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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
```



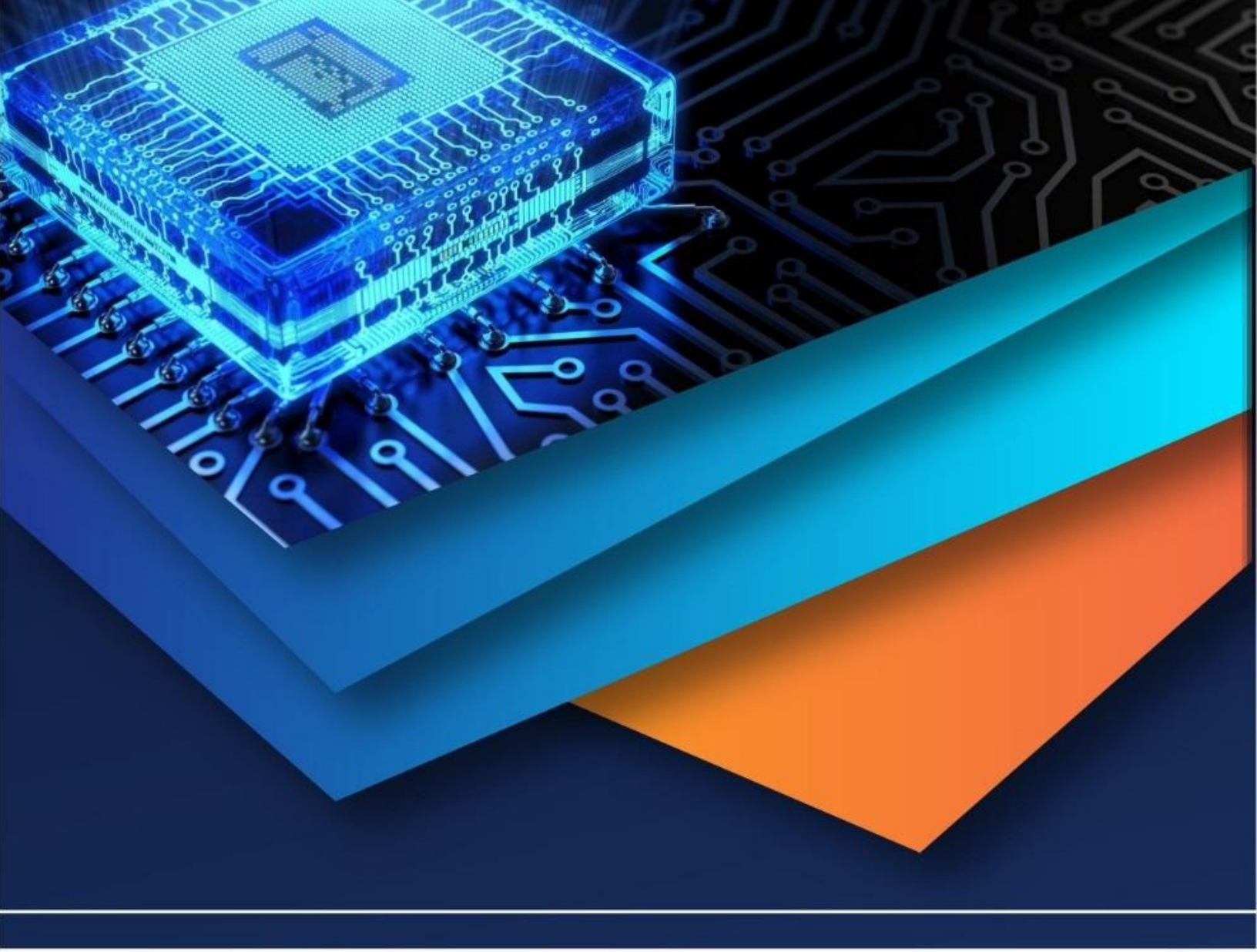
V. CONCLUSION

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

REFERENCES

[1] Ian J. Goodfellow, Jean Pouget-Abadie, Mehdi Mirza , Bing Xu, David Warde-Farley, SherjilOzair, "Generative Adversarial Nets," in Advances in Neural Information Processing Systems 27, 2014.
[2] I. Goodfellow, Y. Bengio and A. Courville, Deep Learning, MIT Press, 2016.
[3] G. Ognjanovski, "Towards Data Science," 14 January 2019. [Online]. Available: https://towardsdatascience.com/everything-you-need-to-know-aboutneuralnetworksand-backpropagation-machine-learning-made-easy e5285bc2be3a. [Accessed 30 8 2019].
[4] C. M. Bishop, Pattern recognition and machine learning, 5th Edition, Springer, 2007.
[5] Yann LeCun et al, "Backpropagation Applied to Handwritten Zip Code Recognition,"Neural Computation, vol. 1, pp. 541-551, 1989.
[6] Kevin Murphy, Machine Learning: A Probabilistic Perspective, MIT Press, 2012.
[7] Yann LeCun et al, "Gradient-based learning applied to document recognition," Proceeding of the IEEE, vol. 86, no. 11, pp. 2278-2324, 1998.
[8] Yi-Tong Zhou, Rama Chellappa, "Computation of optical flow using a neural network," in IEEE 1988 International Conference on Neural Networks, 1988.
[9] Dominik Scherer, Andreas Müller, Sven Behnke, "Evaluation of Pooling Operationsin Convolutional Architectures for Object Recognition," in 20th InternationalConference on Artificial Neural Networks (ICANN), Thessaloniki, Springer, 2010,pp. 99-101.
[10] Kurt Hornik, Maxwell Stinchcombe, Halbert White, "Multilayer feedforward networksare universal approximators," Neural networks, vol. 2, no. 5, pp. 359-366, 1989.

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10.22214/IJRASET

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