

**AN INTELLIGENT FASHION RECOMMENDATION  
SYSTEM**

Erandi Praboda Hettiarachchi

(199328R)

Degree of Master of Science

Department of Computer Science and Engineering

University of Moratuwa

Sri Lanka

April 2021

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Erandi Praboda Hettiarachchi

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This dissertation submitted in partial fulfillment of the requirements for the degree  
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## **DECLARATION**

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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The above candidate has carried out research for the Masters thesis under my supervision.

Name of the supervisor: Dr. Indika Perera

Signature of the supervisor:

Date

## ABSTRACT

In the present as a result of the rapid rising in living standards, most people have been tempted to develop their interest in shopping. As a result of that, nowadays there is a huge demand for garments and the number of people who pursue fashion has increased. Since there are different types of garments available in the market people have to figure out what needs to buy and this will lead to trying garments repeatedly, which consumes more time for the selection. On the other hand, even though most of the sellers have online stores the real benefits of online stores cannot be obtained because the consumers always have a doubt whether the purchase will be matching with him or her. Besides all of these, it is somewhat impossible for the merchant to identify the real customer demand and create an outfit based on each person's satisfaction. In the present most of the available recommendation systems will recommend the clothes for a user based on the activities or the behavior of the other users who used the system previously by considering that all users behave simultaneously. The current user's personal preferences will not take into account. But when it comes to the cloth recommendation, it is very crucial to consider the users' personal preference. This paper presented an automated way of recommending outfits based on the user image by directly incorporating the visual signals into the recommendation objective. This research provides more insights on how convolutional neural networks can be used for the feature extraction phase from fashion images and evaluate the output from different CNNs. To achieve better results than the available neural network this research is proposing a hybrid approach of using both ResNet and VGG. The final evaluation of the system proves that the hybrid approach is having a positive impact on achieving more accurate results than the existing systems.

## **ACKNOWLEDGEMENTS**

My profound gratitude goes to Dr. Indika Perera, my supervisor for the knowledge, supervision, advice, and guidance provided with his expertise, throughout making the thesis a success.

My appreciation goes to my family for the motivation and support provided throughout my life.

I also would like to thank my colleagues in the MSc batch and at my workplace for the help and support provided in managing my research work.

## TABLE OF CONTENT

Declaration	I
Abstract	II
Acknowledgments	III
Table of content	IV
List of Figure	VI
List of Tables	VII
Introduction	1
1.1 Problem	2
1.2 Objectives	3
1.3 Scope	3
1.4 Outline	4
Literature Review	5
2.1 Research carried under the cloth recommendation.	5
2.2 Research carried under Image processing.	6
2.3 Research carried under text-based recommendation	8
2.4 Research carried under CNN-based fashion	9
recommendation.	
2.5 Summary	10
Methodology	11
3.1 Data set	12
3.2 Image Pre-Processing	14
3.3 Recommendation using CNN	15
3.4 Training ResNet + VGG	20
3.5 Summary	22
System Architecture and Implementation	23
4.1 ResNet Architecture	23

4.1.1	Implementation of ResNet	27
4.2	VGG Architecture	31
4.2.2	Implementation of VGG	32
4.3	Recommendation using cosine similarity	33
4.4	Summary	35
Evaluation		36
Conclusion		41
6.1	Research Contribution	41
6.2	Limitation of the research approach	42
6.3	Future Works	43
References		44

## LIST OF FIGURES

Figure 3.1: Distribution of Fashion Item Categories	13
Figure 3.2: Steps of Image Preprocessing	14
Figure 3.3: Architecture of Convolutional Neural Network	15
Figure 3.4: Implementation of “Low-level features extraction”	16
Figure 3.5: Components of the proposed system	17
Figure 3.6: Performance of different CNNs	18
Figure 3.7: Implementation of the using pre-trained models	18
Figure 3.8: Components of ResNet +VGG System	19
Figure 3.9: Results after changing the weight ratio	20
Figure 3.10: Results of combination model	20
Figure 4.1: ResNet 50 Architecture	24
Figure 4.2: Layers of ResNet50	25-26
Figure 4.3: ResNet Architecture	27
Figure 4.4: Identity block Structure	27
Figure 4.5: Convolutional block Structure	28
Figure 4.6: Visualization of VGG16 architecture	32
Figure 4.7: Cosine Similarity Calculation	34
Figure 5.1: Recommendation results obtained from the system	38-40

## LIST OF TABLES

Table 5.1: Performance of different CNNs

37