**Ideation Phase**

**Literature Survey**

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| --- | --- |
| Date | 19 September 2022 |
| Team ID | PNT2022TMID23716 |
| Project Name | Smart Fashion Recommender Application |
| Maximum Marks | 4 Marks |

**1.Paper Title:** Image-based fashion recommender systems

**Publication**:2021

**Author Name**: Shaghayegh Shirkhani

**Abstract** : Collaborative filtering, the iterative filtering process, matrix factorization, and content-based systems. Systems for collaborative filtering make product recommendations based on user similarity metrics and/or by grouping things from similar users' purchases.

Despite the variety of collaborative filtering methods, many widely used systems can be distilled down to just two steps:

1. Seek out users who have similar rating tendencies to the active user (the user whom the prediction is for).

2. To establish a prediction for the active user, utilise the ratings from the users who shared your interests in step one.

**2.Paper Title:** Advanced Fashion Recommendation System for Different Body Types using Deep Learning Models

**Publication:** July 18th, 2022

**Author Name**: Seema Wazarkar1 , Shruti Patil\*2, Pratik S. Gupta2 , Kriti Singh2 , Mukund Khandelwal2 , C.V. Sri Vaishnavi2 , Ketan Kotecha2

**Abstarct:** The fashion industry is rapidly expanding and playing a critical role in driving global economies. Due to this ever-growing industry, application of computer science is rising rapidly to solve different problems in this industry. Many e-commerce sites around the world allow their customers to purchase clothing items over the internet predominantly using recommender systems for shoppers based on the customer's purchase history, similar buying patterns of other shoppers, items in the wishlists and latest trends. These recommendation models lack personalization based on the user's body demographics. Since fashion is a way, one chooses to express themselves, it is important that each piece is carefully selected to suit the buyer. In this paper, an improved recommendation system is developed using a deep learning model for customers with different body shapes/types. It helps users to select clothing items based on their body shape. Proposed system is evaluated with respect to multiple deep learning models as well as traditional machine learning approaches. Xception model out performed by achieving 94% accuracy and a loss of 0.02%.

**References :**

1. GloablInfoResearch: Global Fast Fashion Apparel Market 2021 by Key Countries, Companies, Type and Application. GloablInfoResearch, HongKong, 2021.

2. Hou, M., Wu, L., Chen, E., Li, Z., Zheng, V. W., & Liu, Q.:Explainable fashion recommendation: A semantic attribute region guided approach. In Proceedings of the 28th Twenty-Eighth International Joint Conference on Artificial Intelligence, 2019; pp. 4681- 4688.

# 3.Paper Title: Personalized fashion recommender system with image based neural networks.

# Publication: October 2020

# Author Name: M Sridevi1, N ManikyaArun1, M Sheshikala2 and E Sudarshan3

# Abstract: With an increase in the standard of living, peoples' attention gradually moved towards fashion that is concerned to be a popular aesthetic expression. Humans are inevitably drawn towards something that is visually more attractive. This tendency of humans has led to development of fashion industry over the course of time. However, given too many options of garments on the e-commerce websites, has presented new challenges to the customers in identifying their correct outfit. Thus, in this paper, we proposed a personalized Fashion Recommender system that generates recommendations for the user based on an input given. Unlike the conventional systems that rely on user's previous purchases and history, this project aims at using an image of a product given as input by the user to generate recommendations since many-a-time people see something that they are interested in and tend to look for products that are similar to that. We use neural networks to process the images from Deep Fashion dataset and a nearest neighbour backed recommender to generate the final recommendations.

# References:

* Cordier F., Seo H. and Magnenat-Thalmann N. 2003 Made-to-measure technologies for an online clothing store IEEE Computer Graphics and Applications **23** 38-48

[Google Scholar](https://scholar.google.com/scholar?q=Cordier+F.%2C+Seo+H.+and+Magnenat-Thalmann+N.+2003+Made-to-measure+technologies+for+an+online+clothing+store+IEEE+Computer+Graphics+and+Applications+23+38-48)

* Li R., Zou K., Xu X., Li Y. and Li Z. 2011 2011 Proceedings of the Research of Interactive 3D Virtual Fitting Room on Web Environment. Symposium on Computational Intelligence and Design (Iscid '11) (Hangzhou, China) Research of interactive 3D virtual fitting room on web environment **1** 32-35

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