Smart Fashion Recommendation Systems
Literature survey

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Paper 1:

A Review of Modern Fashion Recommender Systems,Yashar Deldjoo, Fatemeh Nazary, Amau Ramisa, Julian McAuley, Giovanni Pellegrini, Alejandro Bellogin, and Tommaso Di Noia, December2021, ACMComput.Surv.37,4.Articlel11(December2021).

The textile and apparel industries have grown tremendously over the last years. Customers no longer have to visit many stores, stand in long queues, or try on garments in dressing rooms as millions of products are now available in online catalogs. However, given the plethora of options available, an effective recommendation system is necessary to properly sort, order, and communicate relevant product material or information to users. Effective fashion RS can have a noticeable impact on billions of customers' shopping experiences and increase sales and revenues on the provider-side.The goal of this survey is to provide a review of recommender systems that operate in the specific vertical domain of garment and fashion products. We have identified the most pressing challenges in fashion RS research and created a taxonomy that categorizes the literature according to the objective they are trying to accomplish and type of side-information (users, items, context). We have also identified the most important evaluation goals and perspectives and the most commonly used datasets and evaluation metrics.

Paper 2:

Design of Garment Style Recommendation System Basedon Interactive Genetic Algorithm, Yan Zhao, 24 March 2022, Research Article | Open Access, Volume2022|ArticleID9132165.

Recommender systems provide users with product information and suggestions, which has gradually become an important research tool in e-commerce IT technology, which has attracted a lot of attention of researchers. Collaborative filtering recommendation technology has been the most successful recommendation technology so far, but there are two major problems—recommendation quality and scalability. At present, research at home and abroad mainly focuses on recommendation quality, and there is less discussion on scalability. -e scalability problem is that as the size of the system increases, the response time of the system increases to a point where users cannot afford it. Existing solutions often result in a significant drop in recommendation quality while reducing recommendation response time. In this paper, the clustering analysis subsystem based on the genetic algorithm is innovatively introduced into the traditional collaborative filtering recommendation system, and its design and implementation are given. In addition, when obtaining the nearest neighbors, only the clustered users of the target user are searched, making it a collaborative filtering recommender system based on genetic clustering. -e experimental results show that the response time of the traditional collaborative filtering recommender system increases linearly with the increase in the number of users while the response time of the collaborative filtering recommender system based on genetic clustering remains unchanged with the increase in the number of users. On the other hand, the recommendation quality of the collaborative filtering recommender system based on genetic clustering is basically not degraded compared with that of the traditional collaborative filtering recommender system.

Paper 3:

Fashion Recommendation System Model and Methods Samit Chakraborty , Md. Saiful Hoque , Naimur Rahman Jeem, Manik Chandra Biswas, Deepayan Bardhan, Edgar Lobaton, 26 July 2021, Informatics 2021, 8(3), 49.

In recent years, the textile and fashion industries have witnessed an enormous amount of growth in fast fashion. On e-commerce platforms, where numerous choices are available, an efficient recommendation system is required to sort, order, and efficiently convey relevant product content or information to users. Image-based fashion recommendation systems (FRSs) have attracted a huge amount of attention from fast fashion retailers as they provide a personalized shopping experience to consumers. With the technological advancements, this branch of artificial intelligence exhibits a tremendous amount of potential in image processing, parsing, classification, and segmentation. Despite its huge potential, the number of academic articles on this topic is limited. The available studies do not provide a rigorous review of fashion recommendation systems and the corresponding filtering techniques. To the best of the authors' knowledge, this is the first scholarly article to review the state-of-the-art fashion recommendation systems and the corresponding filtering techniques. In addition, this review also explores various potential models that could be implemented to develop fashion recommendation systems in the future. This paper will help researchers, academics, and practitioners who are interested in machine learning, computer vision, and fashion retailing to understand the characteristics of the different fashion recommendation systems.

Paper 4:

A Review on Outfit Fashion recommendation System, Bhagyshree Pravin Bhure, Pratiksha Tulshiram Bansod, Monali ShivramAmgaokar, Savita Pralhad Lodiwale, Anjali pravin, ashish Mohod, 18 May 2021.

With the quick rise in living standards, people's shopping passion grew, and their desire for clothing grew as well. A growing number of people are interested in fashion these days. However, when confronted with a large number of garments, consumers are forced to try them on multiple times, which takes time and energy. As a result of the suggested Fashion Recommendation System, a variety of online fashion businesses and web applications allow buyers to view collages of stylish items that look nice together. Clients and sellers benefit from such recommendations. On the one hand, customers can make smarter shopping decisions and discover new articles of clothes that complement one other. Complex outfit recommendations, on the other hand, assist vendors in selling more products, which has an impact on their business. FashionNet is made up of two parts: a feature network for extracting features and a matching network for calculating compatibility. A deep convolutional network is used to achieve the former. For the latter, a multi-layer completely connected network topology is used. For FashionNet, you must create and compare three different architectures. To achieve individualised recommendations, a two-stage training technique was created.

Paper 5:

A Review on Clothes Matching and Recommendation Systems based on user Attributes, Atharv Pandit, Kunal Goe1, Manav Jain, Neha Katre,03-09-2020, IJERT.

Dressing appropriately is very important when going out in the real world. Wearing clothes properly that show some level of style and wearing them such that they adhere to the norms of social standards uplifts the confidence of the person and creates a very good impression. The study focuses on helping the user to find optimized matching pair of clothes taking into account intricate details like style, patterns, colors, textures, etc. also keeping in mind users attributes like age, skin tone, favorite color etc. It aims to help the user choose clothes that are fashionable and organize their closet. It tries to help the user to wear clothes that are suitable to occasions and helps user to buy clothes that would suit their style. In this paper, an in depth study is performed of various systems that are developed for the various features that must be kept in mind for making a robust system that finds matching clothes of the user as well as makes recommendations. Systems developed to make recommendations of clothes using various approaches have been studied and their merits and demerits high-lighted. Systems that are used for clothes detection have also been studied to make the system user- friendly while the user provides input.