LITERATURE SURVEY

Smart Fashion Recommendation System

Author: Seyed Omid Mohammadi

Year of publishing: 2021

Description:

The rapid progress of computer vision, machine learning, and artificial intelligence combined with the current growing urge for online shopping systems opened an excellent opportunity for the fashion industry. As a result, many studies worldwide are dedicated to modern fashion-related applications such as virtual try-on and fashion synthesis. However, the accelerated evolution speed of the field makes it hard to track these many research branches in a structured framework. This paper presents an overview of the matter, categorizing 110 relevant articles into multiple sub-categories and varieties of these tasks. An easy-to-use yet informative tabular format is used for this purpose. Such hierarchical application-based multi-label classification of studies increases the visibility of current research, promotes the field, provides research directions, and facilitates access to related studies.

Author: Olga Kurasova and Devon S. Johnson

Year of publishing: 2021

Description:

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.

Author: Congying Guan, Shengfeng Qin, Wessie Ling

Year of publishing: 2016

Description:

With the developments of e-commerce markets, novel recommendation technologies are becoming an essential part of many online retailers' economic models to help drive online sales. Initially, the purpose of this paper is to undertake an investigation of apparel recommendations in the commercial market in order to verify the research value and significance. Then, this paper reviews apparel recommendation techniques and systems through academic research, aiming to acquaint apparel recommendation context, summarize the

pros and cons of various research methods, identify research gaps and eventually propose new research solutions to benefit apparel retailing market.

Author: Roetzel and Beer

Year of Publishing: 2009

Description:

As a final retrieval result, a total number of 130 literatures from 7 categories of resources are found and classified (see Table 2). After receiving this dataset, an initial data analysis is performed in order to identify the research trend and where the most useful resources are. A number of 97 literatures are from journal and conference publications which considered as the most valuable sources from an academic point of view. Books give systematic and theoretical knowledge of fashion, style and dressing.

conference papers. In addition, the journal distribution demonstrates a wide scope of research fields in clothing and textile, fashion, marketing, design, economics, computer-aided design, computer graphics, artificial intelligence, information engineering, and machine learning. The top 3 journals having related publications are international journal of clothing science and technology, international journal of fashion design, technology and education and journal of expert system with applications, with retrieval results of 22, 5 and 4 papers respectively.

Author: Angel Arul Jothi and Razia Sulthana

Year of Publishing: 2016

Description:

Over the years, much research has been conducted on fashion recommendation systems. Different techniques such as image processing, machine learning, or deep learning have been incorporated in the

recommendation systems. Online e-stores like Amazon, eBay, etc. customize fashion recommendation systems to satisfy the daily requirements of their customers. A number of different approaches are proposed to study the purchase pattern of the customers. This article reviews various works in fashion recommenders using deep learning that are published from 2016 to 2020. Researchers have used deep learning models distinctly or by pairing with other machine learning models in building the recommendation system. The manuscript provides a brief description of the persuading deep learning models that owns a place in recommendation systems.

Author: Bhagyshree Pravin Bhure

Year of Publishing: 2021

Description:

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. Fashion Net 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.

Author: Yashar Deldjoo and Fatemeh Nazary

Year of Publishing: 2022

Description:

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. 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 (e.g., item or outfit recommendation, size recommendation, explainability, among others) and type of side-information (users, items, context). We have also identified the most important evaluation goals and perspectives (outfit generation, outfit recommendation, pairing recommendation, and fill-in-the-blank outfit compatibility prediction) and the most commonly used datasets and evaluation metrics.