Smart Fashion Recommender Application

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LITERATURE SURVEY

TITLE	Fashion Recommendation Systems, Models and Methods
AUTHORS	Samit Chakraborty, Naimur Rahman Jeem, and Md. Saiful Hoque
YEAR OF PUBLICATION	July 2021
ABSTRACT	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.
METHODOLOGY	Data Mining
MERITS	Accuracy - 0.9316 while using LR and SVR, Comparing multiple models to select the best.
DEMERITS	Consume more time using ReliefF and K - means in data preparation.
OVERCOME DEMERITS	Manually delete the fields which are less contributed.
LINK	https://www.researchgate.net/publication/353485380_Fashion_Recommendation_Systems_Models_and_Methods_A_Review

TITLE	Development of fashion recommendation system using collaborative deep learning
AUTHORS	Gwang Han Lee, Sungmin Kim, Chang Kyu Park.
YEAR OF PUBLICATION	27 April 2022
ABSTRACT	A recommendation system has been developed by using the image data of the clothing products, assuming that the user considers the visual characteristics importantly when purchasing fashion products. In order to evaluate the performance of the model developed in this study, it was compared with Random, Itempop, Matrix Factorization and Generalized Matrix Factorization models.
METHODOLOGY	Artificial Intelligence and Deep learning
MERITS	Accuracy - 94% Comparing multiple algorithms.
DEMERITS	Need more DownTime.
OVERCOME DEMERITS	Use View which contains data stored before training, which leads to use the bw system while training and downtime required.
LINK	https://www.emerald.com/insight/content/doi/10.1108/IJCST-11-2021-0172/full/html

TITLE	Smart Fashion: A Review of AI Applications in the Fashion & Apparel Industry.
AUTHORS	Seyed Omid Mohammadi, Ahmad Kalhor
YEAR OF PUBLICATION	28 Oct 2021
ABSTRACT	The fashion industry is on the verge of an unprecedented change. The implementation of machine learning, computer vision, and artificial intelligence (AI) in fashion applications is opening lots of new opportunities for this industry. This paper provides a comprehensive survey on this matter, categorizing more than 580 related articles into 22 well-defined fashion-related tasks. Such structured task-based multi-label classification of fashion research articles provides researchers with explicit research directions and facilitates their access to the related studies, improving the visibility of studies simultaneously. For each task, a time chart is provided to analyze the progress through the years. Furthermore, we provide a list of 86 public fashion datasets accompanied by a list of suggested applications and additional information for each.
METHODOLOGY	Machine Learning
MERITS	Using Machine learning Increases the Accuracy and computing time.
DEMERITS	Didn't compare many algorithm to get the best.
OVERCOME DEMERITS	Compare more models with same data.

LINK	

TITLE	Design and implementation of clothing fashion style recommendation system using deep learning
AUTHORS	Muhammad Khalid, Mao Keming, Tariq Hussain.
YEAR OF PUBLICATION	December 2021
ABSTRACT	In recent years, the huge amount of information and users of the internet service, it is hard to know quickly and accurately what the user wants. This phenomenon leads to an extremely low utilization of information, also known as the information overload problem. Traditionally, keywords are used to retrieve images, but such methods require a lot of annotations on the image data, which will lead to serious problems such as inconsistent, inaccurate, and incomplete descriptions, and a huge amount of work. To solve this problem, Content Based Information Retrieval (CBIR) has gradually become a research hotspot.
METHODOLOGY	Deep learning
MERITS	High Accuracy, good recall and G-means.
DEMERITS	Didn't compare many algorithm to get the best.

OVERCOME DEMERITS	Compare more models with the same data.
LINK	

TITLE	Recommendation by Users' Multimodal Preferences for Smart City Applications
AUTHORS	Cai Xu, Ziyu Guan, Wei Zhao, Quanzhou Wu, Meng Yan, Long Chen, Qiguang Miao
YEAR OF PUBLICATION	29 July 2020
ABSTRACT	As an essential role in smart city applications, personalized recommender systems help users to find their potentially interested items from their historically generated data. Recently, researchers have started to utilize the massive user-generated multimodal contents to improve recommendation performance. However, previous methods have at least one of the following drawbacks: 1) employing shallow models, which cannot well capture high-level conceptual information; 2) failing to capture personalized user visual preference. In this article, we present a deep users' multimodal preferences-based recommendation (UMPR) method to capture the textual and visual matching of users and items for recommendation
METHODOLOGY	Analysis and Classification

MERITS	Good Accuracy in both training and Validating dataset.
DEMERITS	Using only one algorithm.
OVERCOME DEMERITS	Compare more models with the same data.
LINK	https://ieeexplore.ieee.org/abstract/document/9152003