### **Smart Fashion Recommender Application**

Bollineni Mahesh, Kandlagunta Venkata Siva Niranjan Reddy, Kancharlapallii BalaKrishna, Salady SriRaman

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 | <https://arxiv.org/abs/2111.00905> |

|  |  |
| --- | --- |
| 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 | <https://www.researchgate.net/publication/356838929_Design_and_implementation_of_clothing_fashion_style_recommendation_system_using_deep_learning> |

|  |  |
| --- | --- |
| 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](https://ieeexplore.ieee.org/abstract/document/9152003"  \t "_blank) |