

LITERATURE SURVEY

SMART FASHION RECOMMENDER APPLICATION

1. **M. S. Almas and L. Vanfretti, "A Hybrid Synchrophasor and GOOSE-Based Power System Synchronization Scheme," 2016.**

This paper conveys about the design and real-time hardware-in-the-loop implementation of a hybrid synchrophasors and GOOSE-based automatic synchronization algorithm. The algorithm is deployed inside the PMU using the protection logic equations, and direct communication between the PMUs is established to minimize the communication latencies. In addition, the algorithm is tested using a standard protection relay test-set, and automatic test sequences are executed to validate its performance. It is concluded that the hybrid synchrophasor and GOOSE-based automatic synchronization scheme ensures minimum communication latencies, reduces equipment cost, facilitates interoperability, and performs automatic reconnection adequately.

2. **Z. Yang, Z. Su, Y. Yang and G. Lin, "From Recommendation to Generation: A Novel Fashion Clothing Advising Framework," 2018.**

This paper says about building a successful recommendation system means giving each user an optimal personalized recommending list. The top ranked clothing in the list are expected to meet a series of user's needs such as preference, taste, style, and consumption level. In online shopping, the most common way is to use user's explicit rating of items. However, user's implicit feedback such as browsing log, collection, and reviews may contains extra information to help model user's preference more accurately. In addition, the recommended clothing should also meet user's consumption level, which is an important factor easily overlooked in recommendation system.

3. **W. Li and B. Xu, "Aspect-Based Fashion Recommendation With Attention Mechanism," 2020.**

This paper mainly focuses on the rapid growth of fashion e-commerce, fashion recommendation which has become a main digital marketing tool that is built on customer reviews and ratings. Online review is a powerful source for understanding users' shopping experiences, preferences and feedbacks on product/item performances, and thus is useful for enhancing personalized recommendations for future purchases. However, most extant fashion recommendation methods lack effective frameworks to integrate local and global aspect representations extracted from customers' ratings and reviews.

4. **Q. Tu and L. Dong, "An Intelligent Personalized Fashion Recommendation System," 2010.**

This paper proposes a novel system Intelligent Personalized Fashion Recommendation System, which creates a new space in web multimedia mining and recommendation. The proposed system significantly helps customers find their most suitable fashion choices in mass fashion information in the virtual space based on multimedia mining. There are three stand-alone models developed to optimize the analysis of fashion features in mass fashion trend: (i). Interaction and recommender model, which

associated clients' personalized demand with the current fashion trend, and helps clients find the most favorable fashion factors in trend. (ii). Evolutionary hierarchical fashion multimedia mining model, which creates a hierarchical structure to filter the key components of fashion multimedia information in the virtual space. (iii). Color tone analysis model, a relevant and straightforward approach for analysis of main color tone as to the skin and clothing is used. As evidenced, the proposed system outperforms in effectiveness on mass fashion information in the virtual space compared with human, and thus developing a personalized and diversified way for fashion recommendation.

5. W. -C. Kang, C. Fang, Z. Wang and J. McAuley, "Visually-Aware Fashion Recommendation and Design with Generative Image Models," 2017.

This paper says about building effective recommender systems for domains like fashion is challenging due to the high level of subjectivity and the semantic complexity of the features involved. Recent work has shown that approaches to 'visual' recommendation can be made more accurate by incorporating visual signals directly into the recommendation objective, using 'off-the-shelf' feature representations derived from deep networks. Here, we seek to extend this contribution by showing that recommendation performance can be significantly improved by learning 'fashion aware' image representations directly, i.e., by training the image representation (from the pixel level) and the recommender system. This represents a first step towards building systems that go beyond recommending existing items from a product corpus, but which can be used to suggest styles and aid the design of new products.

6. C. Stan and I. Mocanu, "An Intelligent Personalized Fashion Recommendation System," 2019.

This paper presents an automated system that can recommend a full outfit based on a cloth item considering also user's preference. Two convolutional neural networks based on the AlexNet model are used to identify cloth items and attributes associated with each item. After that, two types of scores are used in order to evaluate the user's preference for combination of different items, that are continuously updated in order to obtain recommendations that are more suitable for each user.

7. Y. -G. Shin, Y. -J. Yeo, M. -C. Sagong, S. -W. Ji and S. -J. Ko, "Deep Fashion Recommendation System with Style Feature Decomposition," 2019.

This paper explains about the convolutional neural network (CNN) - based fashion recommendation techniques, which automatically recommend the matching clothes to the consumer, have been widely researched. In general, the feature vector of a fashion item, i.e. clothes vector, obtained by CNN conveys two types of information: style and category, where the style indicates the distinctive characteristic of the clothes and the category represents the common properties of the clothes in the same class. Due to the mixed information of style and category, however, the clothes vector often recommends the unmatching clothes. To solve this problem, we propose a style feature extraction (SFE) layer, which effectively decomposes the clothes vector into style and category. Based on the characteristics that the category information has small variations in the same class while

being distinguished from other classes, we extract and remove the category information from the clothes vector to obtain more accurate style information.

8. S. Liu, L. Liu and S. Yan, "Fashion Analysis: Current Techniques and Future Directions," 2014.

This paper focuses on the huge profit potential in the fashion industry, intelligent fashion analysis based on techniques for clothing and makeover analysis is receiving much attention in the multimedia and computer vision literature. Here, the state-of-the-art clothing analysis techniques (clothing modeling, recognition, and parsing) that can be applied in many real applications, such as clothing retrieval and recommendation. The authors then introduce several makeover-related research directions, such as facial attractiveness prediction, facial makeup synthesis, and hair segmentation. Lastly, they discuss promising future directions for clothing and makeover analysis.

9. S. -Y. Jo, S. -H. Jang, H. -E. Cho and J. -W. Jeong, "Scenery-Based Fashion Recommendation with Cross-Domain Generative Adversarial Networks," 2019.

This paper focuses on building an effective fashion recommendation system is a still challenging issue due to its high complexity. Here, a novel system to recommend to fashion designs that fit target sceneries. To address this, the exemplar photos regarding the target landscape are first collected from the database. Afterwards, a cross-domain generative adversarial network (GAN) is applied to generate fashion designs from the sceneries. The experimental results demonstrate the feasibility of the proposed system and imply further research directions.