LITERATURE SURVEY

TITLE: A REVIEW ON OUTFIT FASHION RECOMMENDATION SYSTEM

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ABSTRACT:

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. For Fashion Net, you must create and compare three different architectures. To achieve individualised recommendations, a two-stage training technique was created.

TITLE: FASHION RECOMMENDATION SYSTEMS, MODELS AND METHODS: A REVIEW

AUTHOR: Samit Chakraborty [1,2], Md. Saiful Hoque [2,3], Naimur Rahman Jeem [4], Manik Chandra Biswas[1], Deepayan Bardhan [5] and Edgar Lobaton [5]

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. 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.

TITLE: FASHION OUTFIT GENERATION FOR E-COMMERCE

AUTHOR: Elaine M. Bettaney, Stephen R. Hardwick, Odysseas Zisimopoulos, Benjamin Paul Chamberlain

ABSTRACT:

Combining items of clothing into an outfit is a major task in fashion retail. Recommending sets of items that are compatible with a particular seed item is useful for providing users with guidance and inspiration, but is currently a manual process that requires expert stylists and is therefore not scalable or easy to personalise. We use a multilayer neural network fed by visual and textual features to learn embeddings of items in a latent style space such that compatible items of different types are embedded close to one another. We train our model using the ASOS outfits dataset, which consists of a large number of outfits created by professional stylists and which we release to the research community. Our model shows strong performance in an offline outfit compatibility prediction task. We use our model to generate outfits and for the first time in this field perform an AB test, comparing our generated outfits to those produced by a baseline model which matches appropriate product types but uses no information on style. Users approved of outfits generated by our model 21% and 34% more frequently than those generated by the baseline model for womenswear and menswear respectively.

TITLE: ONLINE SHOP RECOMMENDATION SYSTEM

AUTHOR: ANIS AZUMA BINTI CHE ZULKIFLI

ABSTRACT:

Online Store Recommendation System is a web-based concept that provides convenient and efficient services that will create the opportunity for the company to advertise their products. Customers can search and view the information details about their desire stores in such a simple way. The problem faced is customers have to go to multiple business sites to find out the information that they need such as the location of the branch and contact number. Instead of having to go to multiple business site, they can just go to one location for all the information needed. They can find all the local stores and shops details under one roof. No need to browse all different sites to get their details. This is a complete unique solution, helps in reducing browsing across various sites either in browser or social media. Unfortunately, it is hard to recall all the techniques for each selected application. However, if all the techniques learnt in each course are mapped to certain possible application, it can assist a student to select the appropriate topic and technique. In realizing this solution, content-based filtering technique will be used to recommend some possible algorithm from the specialized courses based on the similar application domain of the system. In a content-based recommender system, keywords are used to describe the items and a user profile is built to indicate the type of item this user likes. In other words, these algorithms try to recommend items that are similar to those that a user liked in the past. Other technique used is decision tree method. This method uses branching method to illustrate every possible outcomes of a decision and all their possible consequences. It is on way conditional control statements.

TITLE: DESIGN AND IMPLEMENTATION OF CLOTHING FASHION STYLE RECOMMENDATION SYSTEM USING DEEP LEARNING

AUTHOR: Muhammad KHALID1, Mao KEMING1, Tariq HUSSAIN2

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. CBIR retrieves picture objects based entirely on the content. The content of an image needs to be represented by features that represent its uniqueness. Basically, any picture object can be represented by its specific shapes, colors, and textures. These visual characteristics of the image are used as input conditions for the query system, and a result the system will recommended nearest images and data set. This research designs and implements two-stage deep learning-based model that recommends a clothing fashion style. This model can use deep learning approach to extract various attributes from images with clothes to learn the user's clothing style and preferences. These attributes are provided to the correspondence model to retrieve the contiguous related images for recommendation. Based on data-driven, this thesis uses convolutional neural network as a visual extractor of image objects. This experimental model shows and achieves better results than the ones of the previous schemes.

TITLE: CLOTHING FASHION STYLE RECOMMENDATION SYSTEM

AUTHOR: Wei Dai

ABSTRACT:

This thesis proposes a clothing recommendation system that can recommend clothing images based on the fashion style of the provided clothing images. In this work, we focus on the images of upper body clothing and with human model in the images. In the first part, we present a clothing dataset collected from Internet containing 27,375 men’s and women’s clothing images of 11 clothing categories. We develop a recommendation system that can differentiate fashion categories of query images. We propose a framework that divides the system into three decoupled and autonomous components in order to provide a highly flexible and extensible system. Then we describe an implementation of this framework on a Linux server. To demonstrate this clothing recommendation system we also develop two user interfaces, including a Web Application and an iOS App. Lastly, we discuss the approaches to secure the system and user privacy. We set up a Demo of this clothing recommendation system running on iPhone, which can achieve promising results within 5 seconds.