

Smart Fashion Recommender System

ABSTRACT:

Fashion applications have seen tremendous growth and are now one of the most used programs in the e-commerce field. The needs of people are continuously evolving, creating room for innovation among the applications. One of the tedious processes and presumably the main activities is choosing what you want to wear. Having an AI program that understands the algorithm of a specific application can be of great aid. We are implementing such a chat bot, which is fed with the knowledge of the application's algorithm and helps the user completely from finding their needs to processing the payment and initiating delivery. It works as an advanced filter search that can bring the user what they want with the help of pictorial and named representation. The application also has two main user interfaces - the user and the admin. The users can interact with the chat bot, search for products, order them from the manufacturer or distributor, make payment transactions, track the delivery, and so on. The admin interface enables the user to upload products, find how many products have been bought, supervise the stock availability and interact with the buyer regarding the product as reviews

Literature Survey

Paper-2: A Systematic Study on the Recommender Systems in the E-Commerce[Pegah Malekpour Alamdari, N. J. Navimipour, M.Hosseinzadeh 2020]

Electronic commerce or e-commerce includes the service and good exchange through electronic support like the Internet. It plays a crucial role in today's business and users' experience. Also, e-commerce platforms produce a vast amount of information. So, Recommender Systems (RSs) are a solution to overcome the information overload problem. They provide personalized recommendations to improve user satisfaction. The present article illustrates a

comprehensive and Systematic Literature Review (SLR) regarding the papers published in the field of e-commerce recommender systems. We reviewed the selected papers to identify the gaps and significant issues of the RSs' traditional methods, which guide the researchers to do future work. So, we provided the traditional techniques, challenges, and open issues concerning traditional methods of the field of review based on the selected papers. This review includes five categories of the RSs' algorithms, including Content-Based Filtering (CBF), Collaborative Filtering (CF), Demographic-Based Filtering (DBF), hybrid filtering, and Knowledge-Based Filtering (KBF).

Paper-2: Implementation of e-commerce used on cloud computing using asp.net technology[Samson Oluwaseun Fadiya, Acheme Odeh, Emeka Joshua Chukwuemeka :2016]

In this paper, the client is given an e-commerce website that is utilized as a part of a cloud domain to discover the store and its locations online. To actualize this as a web application, we utilized ASP.NET as the Technology. ASP.NET has a few preferences, for example, improved execution, scalability, built-in security and simplicity. To build any web application utilizing ASP.NET we require a programming language, for example, C#, VB.NET, J# and so on. VB.NET was the language used to build this application. For the customer browser to associate with the ASP.NET engine, we utilized Microsoft's Internet Information Services (IIS) as the Web Server. ASP.NET utilizes ADO.NET to interact with the database as it gives in-memory caching that takes out the need to contact the database server as often as possible and it can without much of a stretch send and keep up an ASP.NET application. MSSQL was utilized as back-end database since it gives quick data access, easy installation, and simplicity.

Paper-3: Predicting Customer Lifetime Value with AIP Platform on cloud based e-commerce website or web application[Ziv Pollak:2021]

Predicting customer future purchases and lifetime value is a key metrics for managing marketing campaigns and optimizing marketing spend. This task is specifically challenging when the relationships between the customer and the firm are of a noncontractual nature and therefore the future purchases need to be predicted based mostly on historical purchases. This work compares two approaches to predict customer future purchases, first using a “buytill-you-die” statistical model to predict customer behavior and later using a neural network on the same dataset and comparing the results. This comparison will lead to both quantitative and qualitative analysis of those two methods as well as recommendation on how to proceed in different cases and opportunities for future research.

Paper-4: A Case Study on Recommendation Systems Based on Big Data [M. Sandeep Kumar and J. Prabhu :2019]

Recommender systems mainly utilize for finding and recover contents from large datasets; it has been determining and analysis based on the scenario—Big Data. In this paper, we describe the process of recommendation system using big data with a clear explanation in representing the operation of map reduce. We demonstrate the various stage of recommendation namely data collection rating, types of filtering. Analysis Scenario based drug recommender system, it consists of three components namely drug storage, cloud server, and recommender server. The system is evaluating with specific parameters like F-score, Precision, and recall. Finally, we describe the challenge of recommendation systems like data sparsity, cold start, sentimental analysis and No surprise.

Paper-5: Building an e-commerce recommendation system by using Big Query Machine Learning [Farah Tawfiq Abdul Hussien , Abdul Monem S.Rahma:2021]

The technological development in the devices and services provided via the Internet and the availability of modern devices and their advanced applications, for most people, have led to an increase in the expansion and a trend towards electronic commerce. The large number and variety of goods offered on e-commerce websites sometimes make the customers feel overwhelmed and sometimes make it difficult to find the right product. These factors increase the amount of competition between global commercial sites, which increases the need to work efficiently to increase financial profits. The recommendation systems aim to improve the e-commerce systems performance by facilitating the customers to find the appropriate products according to their preferences. There are lots of recommendation system algorithms that are implemented for this purpose. However, most of these algorithms suffer from several problems, including: cold start, sparsity of user-item matrix, scalability, and changes in user interest. This paper aims to develop a recommendation system to solve the problems mentioned before and to achieve high realistic prediction results this is done by building the system based on the customers' behavior and cooperating with the statistical analysis to support decision making, to be employed on an e-commerce site and increasing its performance. The project contribution can be shown by the experimental results using precision, recall, F-function, mean absolute error (MAE), and root mean square error (RMSE) metrics, which are used to evaluate system performance.