**Literature Review**

AmiGandhi/Yelp-User-Rating-Prediction-using-NLP-and-Naive-Bayes-algorithm-and-Restaurant-Recommender. (2020). Retrieved 20 February 2020, from <https://github.com/AmiGandhi/Yelp-User-Rating-Prediction-using-NLP-and-Naive-Bayes-algorithm-and-Restaurant-Recommender/blob/master/README.md>

Yelp is a web and mobile application which helps customers to find services like clinics, hair saloons etc. at their customer location and users can also rate and give reviews about the places they visited to help others. In this project, user rating is predicted using natural language process and navies Bayes algorithms using data of about 11 cities of 4 different countries. For restaurant recommendation they have used user review data then performed text analysis over the data. They have used logistic regression, Baseline model, and Navies Bayes algorithms after applying text pre-processing techniques such as removing stop-words and punctuations over the review data. The collaborative filtration method is used with singular value decomposition and cross validation models to make the recommendation based on likeminded people rating which is called model-based approach for better outcomes. They have tested the data with various methods like KNNBaseline model using pearson\_baseline similarity and cosine similarity scores.

E-Commerce Product Recommendation Engine [Python] | Today I Learned. (2020). Retrieved 20 February 2020, from <https://www.priyanshumadan.com/posts/wayfair-product-recommendation-python/>

Product recommendation engine project mainly uses reviews and price data to suggest products while searching the website/Application. Apart from the reviews there are other factors taken into consideration such as product name, search words, product description to perform content-based filtration for the recommendation of similar products. Initial step will be data cleaning to get better accuracy of the models and here the data is categorized based on price ranges for all products in the dataset. All the text data such as product title, description, and manufacturer details are combined to remove the stop words for the accurate recommendation system. Final step for the recommendation, two main functions used are Countvectorizer() count matrix of occurrence of a word in each feature and cosine\_similarity() to find the similarity for each product in the data. To get the output when product name is given as input by user three functions comes into picture to retrieve the product name, URL, and Index based on the high similarity value and count value.

Aayush210789/Deception-Detection-on-Amazon-reviews-dataset. (2020). Retrieved 23 February 2020, from <https://github.com/aayush210789/Deception-Detection-on-Amazon-reviews-dataset>

Deception Detection on Amazon reviews project mainly focuses on detection of reviews, i.e. whether the reviews given by customers are real or fake. For this project they have only concentrated on SVM (Support Vector Machine) which can used to analyze the data and used for classification model or regression model. In this project firstly they have filtered the raw data from dataset with approximately 21000 samples with text and additional feature, they have preprocessed the data. After training and testing they got the result as training data with total percent of 80% of total dataset or 16800 samples whereas testing data with total percent of 20% or 4200 samples. By using libraries like NLTK and Sklearn with the training data they have implemented cross validation methods(Accuracy, Precision, Recall, F-score) to find the accuracy, later they have implemented same cross validation for test data and by applying SVM model on Rating feature they have predicted 90% of accuracy without using any deep learning techniques. Lastly, they have worked on exploratory analysis with seaborn and matplotlib to explore the reviews given by the customers.

# Credible User-Review Incorporated Collaborative Filtering for Video Recommendation System (2020). Retrieved 23 February 2020, from <https://www.researchgate.net/publication/321857119_Credible_User-Review_Incorporated_Collaborative_Filtering_for_Video_Recommendation_System>

This is an approach to have collaborative filtering (CF) uses user-reviews credibility to generate efficient recommendations for the customers. In the previous CF approaches, less numerical ratings are used for making recommendations, however, overall ratings cannot properly reflect user’s opinion regarding any product. The deficiency associated with the previous rating-based CF approaches is sparseness in the database consists of user’s ratings. As the empty spaces of rating can be filled up by inferring numeric rating from text reviews. Similarly, sentimental analysis is used in this problem to find the sentiment orientation and the strength of all reviews and the words of user-reviews. The approached in this project is COLLABORATIVE FILTERING used to consider the credibility of all the users review factors such as stature of the review writer and standards of the content is reviewed, and results are validated.

Recommender System Based on Consumer Product Reviews - IEEE Conference Publication. (2020). Retrieved 23 February 2020, from <https://ieeexplore.ieee.org/document/4061458>

This project is about selecting this product specially category of camera and its lenses which is based on the consumer reviews and the experience of using the product. The collected information is used as powerful technique to know about the customer preferences that can be used the recommend any digital camera to customers. They have not used any difficult mechanism of selecting the reviews just they analyzed the text data and formalized it into the algorithmic process to get a good review. They have used, the experience of consumers as how much knowledge they are having regarding the cameras. The time, as how long they have been using it for? The project is analyzed as making different categories.

Opinion quality: user skill, experience and the values are analyzed

Product quality: features are reviewed of products

**RECOMMENDATION OF WEBSITES BASED ON REVIEWS**

**Abstract**

Our mission is to build a project that recommendations websites based on the existing user reviews. After reviewing all the related works in the same area, we acknowledged that they have created serval recommender systems which suggest the products and services based on the price, rating, reviews etc. We would like focus mainly on review and recommend the website when user searches on any of the search engine. To execute our strategy, we would like to use certain method and procedure from the existing project like collaborative filtration technique to classify the review data. As we did not finalize the model to execute in our project as of now we are planning to implement the sentimental analysis using natural language process (NLP) to categorize the data into positive and negative and then apply models like naives bayes classifier, cross validation, support vector machine and others which we are exploring.