

FAKE/SPAM REVIEW DETECTION

¹Rishabh Kumar, ²Rajan Kumar Ranjan, ³Gaurav Nandan

¹Student, ² Student, ³ Student,

¹Computer Science and Engineering,

¹Lovely Professional University, Phagwara, India.

Abstract : In our digital era of our life anything we are buying and selling the products and access the services through internet known as E-commerce. In digital era the no of users is increased on e-commerce comparison previous year. Meanwhile the customer reviews on e-commerce is increased. In e-commerce websites, fake review is the major problem for user and admin. In present day the user can write their own reviews, for their purchased product there are many ways to user can write their reviews for product. Spammer can post the fake review. Generally, the users purchased the product on their quality. the fake reviews create the fake review creates lot of problems for the products likes sales, quality economically. So, we are going to remove that type of problems Fake/spam review detection through Natural Language Processing. It is very simple technique which easy to classify the review of the product. Extraction can be used to exact the data from previous reviews of the product to classifies. Our aim is to find the Fake /spam reviews. To detect fake reviews and the try to improve the accuracy of the e-commerce system.

IndexTerms – Spam Review, Fake Review detection, New Spam Review Detection Technique, Spam Review Technology, Spam Review.

I. INTRODUCTION

According to the surveys and reports the 60% costumers are facing fake reviews on online e-commerce website. However, most existing methods have lower accuracy in detecting fake reviews due to they just use single features and lack of labelled experimental data. To solve this problem, we propose a novelty method to detect fake reviews based on multiple feature fusion and rolling collaborative training.

Specific reasons are:

In online shopping almost, customer is confused from fake reviews on website and all customers see the product review, product quality before buying.

Product reviews are very helpful to by product.

Costumers are submit response in two terms whether product is good and bad or give the rating for product.

II. DEFINITION OF PROJECT GOALS

The goals of our project have been defined as follows:

- Product Review: Being able to detect and find fake/spam reviews on website.
- Fake Review Detection: Detecting fake/spam review from the natural language processing.
- Fake review Detection for product: Being able to detect the fake review of the product of through costumer review.

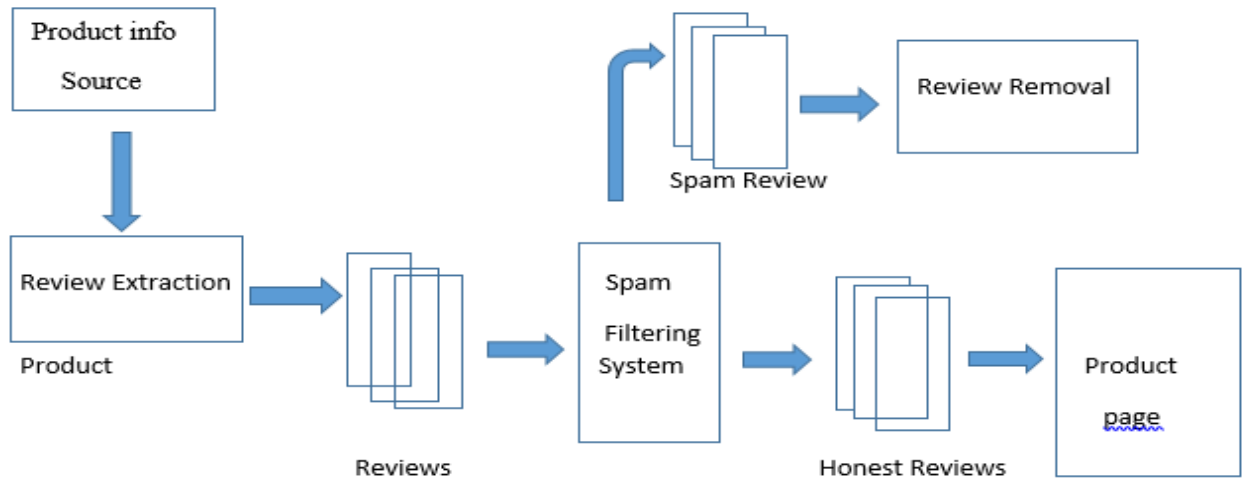
III. SCOPE OF PROJECT

A smart intelligence system which can detect fake/spam review on e-commerce website. From the perspective of a user On E-commerce website many users by product, 10 out of 6 users confused from users' fake reviews a system is required which detect fake reviews. Primary focus and objective of this system is:

1. To develop a system which can easily detect fake/spam review and user-friendly interface?
2. To develop an algorithm which can easily detect fake/spam review of customers.
3. To develop an algorithm using python and natural language process which can easily detect fake/spam of customers.
4. Develop a System which can easily implement to all platforms and run smoothly on systems.

IV. PROBLEM DECOMPOSITION

This project was decomposed into the following sub-tasks: In present situation on e-commerce websites there was no such type of software are used to detect fake/spam review of customers' feedback. We use this software to detect the fake review of particular product through the customer review many research are going on fake/spam review. In this project we are using different language such as HTML, CSS, PYTHON, SQL, MySQL, PHP. In this field these languages are play very important role. In Present Digital era of our life users can easily purchase anything from e-commerce website or any other digital platforms. In present situation much software are developed and ongoing on fake spam/review detection. Many software's are developed but some software's are very advanced algorithm which can detect fake reviews. In very advanced software's algorithm which are beyond on the scope of beginners in this field. In present situation there are many software developers are developed simple algorithm and cost efficient Comparison to advanced software.

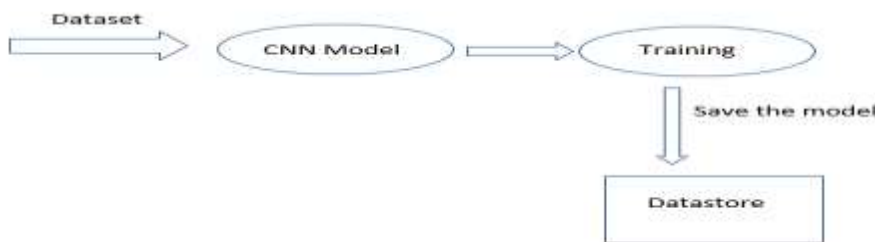


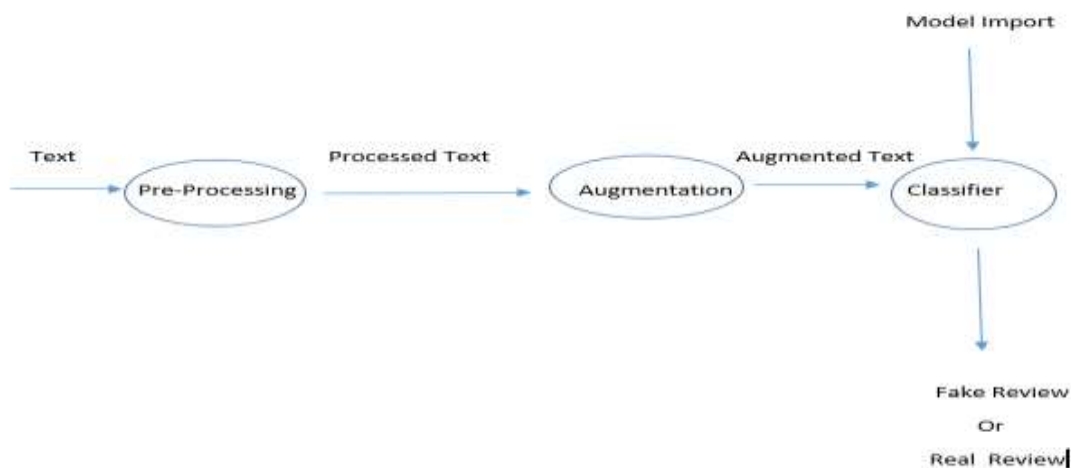
V. IMPLEMENTATION

In our approach to solving the problems mentioned in the problem decomposition, we have utilized a combination of neural networks and traditional computer vision processing techniques in order to develop our prototype.

A. Design and Algorithms

Reviews are detected using the concept of deep learning and with a full convolution network (CNN), details are explained here: The purpose of this project to detect the fake reviews using neural network. This system is trained on fake review dataset collected from different sources. In this research, the SVM classification mechanism has been used for detect the fake reviews by using IP address. This implementation helpful for users finds out the correct review of online product. In this accuracy is improved by 98.12%. Feasibility Study proposes at least one theoretical answer for the issues set for venture. The theoretical arrangement gives a thought of what the new framework will resemble. Achievability study characterizes what will be done on PC and what will stay manual. It was discovered that proposed framework is operationally and financially practical. Likewise, it is important to counsel the clients to check whether the mechanized information recording capacity stratifies the client destinations and can be fitted into current framework activity. The significant yields of this stage are in fact attainable report, money saving advantage examination report, operational attainability report, and time calendar of the undertaking.





Proposed framework is gainful just in the event that they can be transformed into data framework that will meet the client's prerequisites. As the framework is easy to use, all through the framework is all around connected and endorsed by the client's needs greater office that can be gives. The framework has been getting ready remembering the client's present necessities change in future. The proposed framework won't make any mischief the client however rather, it will upgrade in a superior way since profound learning model is adapt more with models.

B. CNN Architecture

Design of CNN in this step model look like and how convolution layers and other deep neural network layers works. In this project we use following deep neural network layer of CNN:

- 4 convolution layers
- 2 Max-pooling layers
- 1 dense layer
- 1 Dropout layer
- 1 output layer



VI. CONCLUSION AND FUTURE EXTENSIONS

In conclusion, although there were few issues with false reviews and the inability to detect spam reviews, the prototype generally performed well during the lab demonstration. This project being one among the foremost topics in real time Spam/Fake review detection and can be extended to observe spam product review.

VII. REFERENCES

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