



Port City International University
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UGC & Govt. Approved University at Khulshi in Chittagong

CUSTOMER SATISFACTION ANALYSIS BY PRODUCT REVIEW

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Introduction

- As the commercial site of the world is almost fully undergone in platform people is trading products through different e-commerce website.
- Sentiment analysis helps to analyze these opinioned data and extract some important insights which will help to other user to make decision.
- In this competitive business world, various industries especially e-commerce immensely use sentiment analysis to increase productivity and make better business decisions.

Motivation

- Very few work done in sentiment analysis on product reviews.
- Sentiment analysis is Defined as the Automatic Assessment of the sentiment expressed in text(in our case by consumers in product reviews).
- A model could be assist possible clients with settling on an informed decision on their purchase and organizations to improve their items or services .

Objective

- 1. To build a new dataset from e-commerce website comments.**
- 2. To classify the sentiment behind e-commerce sites reviews and deliver a modeled output.**
- 3. To perform sentiment analysis on reviews of the products to assess the emotions or sentiments of the user toward the product for the future market.**

State Of The Art

Title	Author	Date & Publisher	Findings
Sentiment Analysis For Product Review	Najma Sultana, Pintu Kumar, Monika Rani Patra, Sourabh Chandra and S.K. Safikul Alam	ICTACT JOURNAL ON SOFT COMPUTING, April 2019	Algorithm : Naiv e Bayes, Logistic Regression, Linear SVC ,Decision Tree Accuracy : over 89.85%. Dataset : 50,000 movie reviews. Limitation : They use a supervised learning method and used one kinds of feature extractor approach.
Sentiment Analysis For Amazon.Com Reviews	Levent Guner, Emilie Coyne, Jim Smit	Researchgate Big Data in Media Technology, March 2019	Algorithm : Linear SVM, Multinomial NB,LSTM network Accuracy : 0.90%. Dataset : Kaggle dataset and Amazon review data. Limitation :

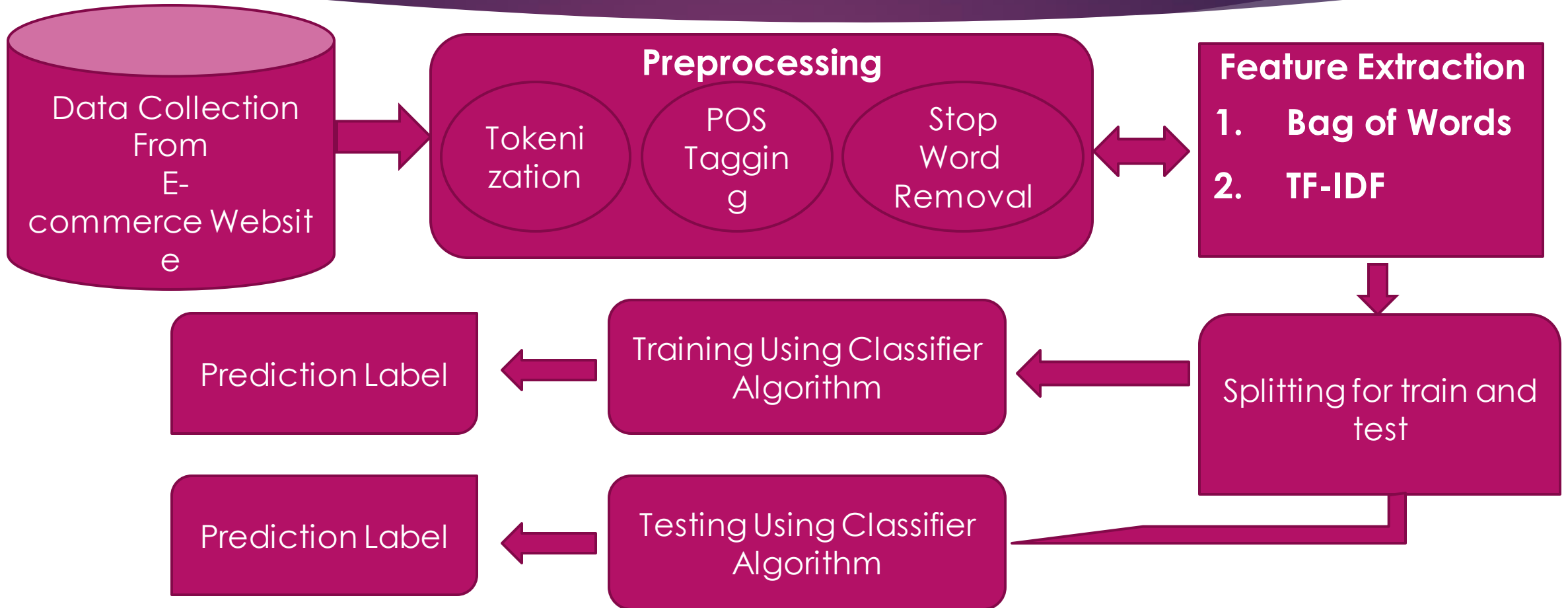
State Of The Art

Title	Author	Date & Publisher	Findings
Sentiment Analysis on Large Scale Amazon Product Reviews	Tanjim Ul Haque, Nudrat Nawal Saber, Faisal Muhammad Shah	IEEE International Conference, June 2018	Algorithm : Linear SVM, Multinomial NB, Stochastic Gradient Descent ,Random Forest, Logistic Regression, decision Tree Accuracy : over 90%. Dataset : Amazon review data Limitation : They use a supervised learning method and used a mix of 2 kinds of feature extractor approach.
Sentiment Analysis on Product Reviews Using Machine Learning Techniques	Rajkumar S. Jagdale, Vishal S. Shirsat and Sachin N. Deshmukh	Springer, Singapore	Algorithm : Naiv e Bayes, SVM Accuracy : 98.17%. Dataset : Amazon review data Limitation :

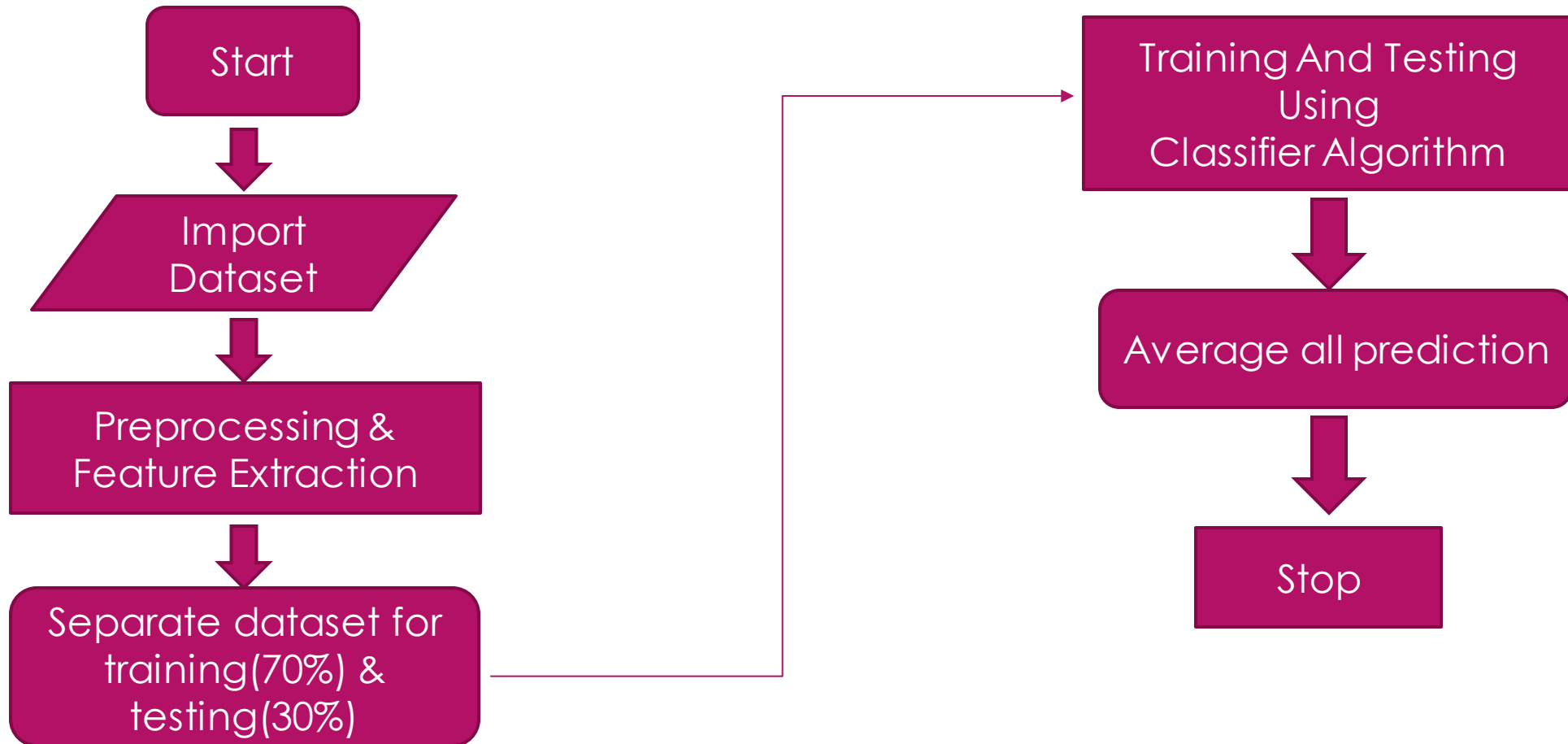
State Of The Art

Title	Author	Date & Publisher	Findings
Sentiment Analysis Of Customer Product Reviews Using Machine Learning	Zeena Singla, Sukhchandan Randhawa, Sushma Jain	IEEE International Conference, June 2017	Algorithm : Naive Bayes, SVM ,Decision Tree Accuracy : 81.77%. Dataset : Amazon review data Limitation :Accuracy is low.

Methodology



System Architecture



Tools & Technologies

- I. Python 3.10.1
- II. Google Colab
- III. Jupyter Notebook

Conclusion

We will try to build up a model which could be helpful for the organization or the owner Of the business may be take some steps for the betterment of their products and services.

Customers could be informed knowledge before purchasing or taking products and services.

References

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Thank You