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Author(s): Sushila Sonare, Megha Kamble.

Title of the Article: Ternary Classification of Product Based Reviews: Survey, Open Issues and New Approach for Sentiment Analysis.

Abstract: Now-a-days, it is very common that the customers share their thoughts about any product, brand and their experience in social media. The analysts collect these reviews and process it, to extract meaningful information about the product. The beauty of social media is, it’s involved in all the domains. So the analysts got reviews from different social media and platforms for almost all kind of thing. The Sentiment Analysis is applied to predict outcomes for getting useful information, for ex.; like predict the blockbuster for a movie, rating for any new launches and many more. This type of prediction is really helpful for the customer to buy any goods or take any services in this competitive world. This paper is focused on e-commerce website reviews which are normally in text form with some special characters and some symbols (emojis). Each word in this text set got some meaning in terms of context, emotion and prior experience. These characteristics contribute to some of the features of text data for prediction. The objective of this paper is to compile existing research works on text analysis and emotion based analysis. The open issues and challenges of document based sentiment analysis are also discussed. The paper concluded with proposing a new approach of multi class classification. Ternary classification for classes positive, negative and neutral is suggested primarily for product based text and emoji reviews on Twitter social media.

Keywords: Sentiment Analysis, reviews, machine learning, e-commerce, Real time.

References:
Author(s): Subrata Das, Sundaramurthy S, Aiswarya M, Suresh Jayaram.

Title of the Article: Deep Learning Convolutional Neural Network for Defect Identification and Classification in Woven Fabric.

Abstract: Inspection is the most important role in textile industry which declares the quality of the apparel product. Many Industries were improving their production or quality using Artificial Intelligence. Inspection of fabric in textile industry takes more time and labours. In order to reduce the number of labours and time taken to complete inspection, computerized image processing is done to identify the defects. It gives the accurate result in less time, thereby saves time and increases the production. The convolutional neural network in deep learning is mainly used for image processing for defect detection and classification. The high quality images are given as input, and then the images were used to train the deep learning neural network. The woven fabric defects such as Holes, Selvedge tails, Stains, Wrong drawing and Snarl were identified by using Convolutional Neural Network. The sample images were collected from the SkyCotex India Pvt. Ltd. The sample images were processed in CNN based machine learning in google platform; the network has a input layer, n number of hidden layer and output layer. The neural network is trained and tested with the samples and the result obtained is used to calculate the efficiency of defect identification.

Keywords: Convolutional Neural Network, Image processing, Snarl, Selvedge tails, Stains, Deep learning.

References:

Author(s): Prithwiraj Jana.


Abstract: This research venture one of the major concerns in the field of expert system. Material selection an important key issue of machine design. Objectives of computerized selection procedure are reduced to personal bias and gives the more accurate optimized result. The concept of entropy; to evaluate the weight factor for each alternative material property or performance index, and the other is TOPSIS and SAW; to rank the candidate materials, for which several requirements are considered simultaneously. Sensitivity analysis is introduced here for better performance of selection.

Keywords: Flywheel, Material selection, TOPSIS, SAW, Entropy, Sensitivity analysis.

References:
Author(s): Tsehay Admassu Assegie.

Title of the Article: K-Nearest Neighbor Based URL Identification Model for Phishing Attack Detection.

Abstract: Phishing causes many problems in business industry. The electronic commerce and electronic banking such as mobile banking involves a number of online transaction. In such online transactions, we have to discriminate features related to legitimate and phishing websites in order to ensure security of the online transaction. In this study, we have collected data form phish tank public data repository and proposed K-Nearest Neighbors (KNN) based model for phishing attack detection. The proposed model detects phishing attack through URL classification. The performance of the proposed model is tested empirically and result is analyzed. Experimental result on test set reveals that the model is efficient on phishing attack detection. Furthermore, the K value that gives better accuracy is determined to achieve better performance on phishing attack detection. Overall, the average accuracy of the proposed model is 85.08%.

Keywords: Phishing attack, Machine learning, KNN Network security, Phishing detection.

References:
19. Assegie, T.A., Nair, P.S, Comparative Study on Methods Used in Prevention and Detection Against Address

Author(s): Surafel Mehari Atnafu, Anuja Kumar Acharya.

Title of the Article: Comparative Analysis of Intrusion Detection Attack Based on Machine Learning Classifiers.

Abstract: In current day information transmitted from one place to another by using network communication technology. Due to such transmission of information, networking system required a high security environment. The main strategy to secure this environment is to correctly identify the packet and detect if the packet contains a malicious and any illegal activity happened in network environments. To accomplish this, we use intrusion detection system (IDS). Intrusion detection is a security technology that design detects and automatically alert or notify to a responsible person. However, creating an efficient Intrusion Detection System face a number of challenges. These challenges are false detection and the data contain high number of features. Currently many researchers use machine learning techniques to overcome the limitation of intrusion detection and increase the efficiency of intrusion detection for correctly identify the packet either the packet is normal or malicious. Many machine-learning techniques use in intrusion detection. However, the question is which machine learning classifiers has been potentially to address intrusion detection issue in network security environment. Choosing the appropriate machine learning techniques required to improve the accuracy of intrusion detection system. In this work, three machine learning classifiers are analyzed. Support vector Machine, Naïve Bayes Classifier and K-Nearest Neighbor classifiers. These algorithms tested using NSL KDD dataset by using the combination of Chi square and Extra Tree feature selection method and Python used to implement, analyze and evaluate the classifiers. Experimental result show that K-Nearest Neighbor classifiers outperform the method in categorizing the packet either is normal or malicious.

Keywords: Classifiers, False Detection, Python, NSL KDD, Intrusion Detection, Machine-learning.

References: