

Email Spam Filtering using Machine Learning

Sagar Kaulagi¹, Satej Kumbhar², Kartik Gambhire³, Abhijeet Sarvade⁴, Prof. Umesh Nanavare⁵

Students^{1,2,3,4} and Professor⁵

Smt. Kashibai Navale College of Engineering, Pune, Maharashtra, India

Abstract: In today's world, all activities depend upon the internet. In that receiving spam email send messages is a major problem. Many times, this kind of mail contains viruses and hacking links and they affect our system. For solving this kind of problem, we need some method that can filter spam mails and non-spam emails. In this paper, we presented one machine learning method that filters spam and non-spam emails. Our algorithm generates the dictionary and features vector and trains them with a machine learning algorithm. Email is one such communication medium that comes to mind when we think of secure communication. As the popularity of email increases, the number of unsolicited data has also increased rapidly. A lot of unwanted stacks of emails called as Spam has created a need for further development. Nowadays machine learning methods have been able to detect and filter out spam emails. The purpose of this current project is to receive a spam email in the morning or effectively using the Multinomial Naïve Bayes method. Naïve approach is a machine-readable algorithm used to classify sample email as spam or not. This filter can be used by other email service providers as fully functional spam filters.

Keywords: Unsolicited Data, Spam Emails, Machine Learning, Multinomial Naïve Bayes Route, Supervised Learning.

REFERENCES

- [1]. M. Awad, M. Foqaha, Email spam classification using hybrid approach of RBF neural network and particle swarm optimization, Int. J. Netw. Secure. Appl. 8 (2016).
- [2]. D. M. Fonseca, O. H. Fazzion, E. Cunha, I. Las-Casas, P. D. Guedes, W. Meira, M. Chaves, Measuring characterizing, and avoiding spam traffic costs, IEEE Int. Comp. 99(2016).
- [3]. Visited on Jan 15, 2022, Kaspersky Lab Spam Report, 2017, 2012.
https://www.securelist.com/en/analysis/204792230/Spam_Report_April12.
- [4]. Megha Tope, Email Spam Detection using Naïve Bayes Classifier (2017).
- [5]. Rish, An empirical study of the Naïve Bayes classifier, T. J. Watson Research Center.

