IJARSCT



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 2, Issue 1, June 2022

Phishing Attack Detection using Machine Learning

Prof. Ritesh Shrivasta, Gaurav Kumar Rajbhar, Aniket Krishna Suryavanshi,
Mohammad Yasir khan, Preshit Ravi Lute, Gokul Dinesh Panse, Mohammad Hasan Abbas
Department of Computer Science

Anjuman College of Engineering and Technology, Nagpur, Maharashtra, India

Abstract: Phishing is a fraudulent attempt to extract sensitive information from individuals or organisations, such as usernames, passwords, and credit card information, by impersonating a trustworthy organisation in a digital communication. Phishing attacks pose significant risks to users' privacy and security. The goal of this research is to provide an overview of various phishing attacks and techniques for protecting information. It also discusses MachineLearning-based categorization for phishing website data in the Machine Learning Object storage database. As we move closer to a better future to better technological advances each year, the danger of credit card information being compromised grows. Credit card fraud has risen dramatically in recent years. This includes details hacking, phishing, and other totally incorrect and illegal means to steal credit card data. In this construction and operation, we will use Machine Learning to implement the phishers URL phishing detection and prevention technique, which will provide real significance of the checked URL and fetched Email.

Keywords: Phishing, Personal information, Machine Learning, Malicious links, Phishing Domain Characteristics, Algorithm, Machine Learning, SVM, Security

REFERENCES

- [1]. R. B. Basnet, A. H. Sung, "Mining web to detect phishing URLs", Proceedings of the International Conference on Machine Learning and Applications, vol. 1, pp. 568-573, Dec 2018.
- [2]. Abdelhamid N., Thabtah F., Ayesh A. (2019) Phishing detection based associative classificationdatamining. Expert systems with Applications Journal. 41 (2019) 5948-5959.
- [3]. Mohammad, R. M., Thabtah, F. & McCluskey, L. (2019) Predicting Phishing Websites using Neural Network trained with Back Propagation. Las Vigas, World Congress in Computer Science, Computer Engineering, and Applied Computing, pp. 682-686.
- [4]. Aburrous M., Hossain M., Dahal K.P. and Thabtah F. (2020) Experimental Case Studies for Investigating E-Banking Phishing Techniques and Attack Strategies. Journal of Cognitive Computation, Springer Verlag, 2(3):242-253.
- [5]. Mohammad R., Thabtah F., McCluskey L., (2014B) Intelligent Rule based Phishing Websites Classification. Journal of Information Security (2), 1-17. ISSN 17518709. IET.
- [6]. Jain, Ankit Kumar, and B. B. Gupta. "Comparative analysis of features based machine learning approaches for phishing detection." Computing for Sustainable Global Development (INDIACom), 2016 3rd International Conference on. IEEE, 2016, pp. 2125-2130.
- [7]. R.Aravindhan, Dr.R.Shanmugalakshmi, Certain Investigation on Web Application Security: PhishingDetection and Phishing Target Discovery, January 2019.
- [8]. L. A. T. Nguyen, B. L. To, H. K. Nguyen, and M. H. Nguyen, "A novel approach for phishing detection using URL-based heuristic," 2014 Int. Conf. Comput. Manag. Telecommun. ComManTel 2014, pp. 298–303,2014.
- [9]. Naghmeh Moradpoor, Employing Machine Learning Techniques for Detection and Classification Of PhishingEmails, July 2017.
- [10]. Hall M., Frank E., Holmes G., Pfahringer B., Reutemann P., Witten I. (2009) The WEKADataMiningSoftware: An Update; SIGKDD Explorations, Volume 11, Issue 1.
- [11]. X. Zhang, Y. Zeng, X. Jin, Z. Yan, and G. Geng, "Boosting the Phishing Detection Performance by Semantic Analysis," 2017.

Copyright to IJARSCT DOI: 10.48175/IJARSCT-4578 162 www.ijarsct.co.in

IJARSCT



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 2, Issue 1, June 2022

- [12]. K. L. Chiew, K. S. C. Yong, and C. L. Tan, "A survey of phishing attacks: Their types, vectors and technical approaches," Expert Systems with Applications, vol. 106, pp. 1–20, 2018.
- [13]. M. Priya, L. Sandhya, and C. Thomas, "A static approach to detect driveby-download attacks onwebpages," Proc. of International Conference on Control Communication and Computing (ICCC'13), pp. 298–303, 2013.
- [14]. H. Yuan, X. Chen, Y. Li, Z. Yang, and W. Liu, "Detecting phishing websites and targets basedonurlsandwebpage links," Proc. 24th International Conference on Pattern Recognition, pp. 3669–3674, 2018.
- [15]. J. Feng, L. Zou, O. Ye, and J. Han, "Web2vec: Phishing webpage detection methodbasedonmultidimensional features driven by deep learning," IEEE Access, vol. 8, pp. 221214–221224, 2020.
- [16]. D. K. McGrath, A. Kalafut, and M. Gupta, "Phishing infrastructure flfluxes all the way," IEEESecurityPrivacy, vol. 7, no. 5, pp. 21–28, 2009

DOI: 10.48175/IJARSCT-4578