

Review on Phishing Attack Detection using Recurrent Neural Network

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Abstract: *Phishing is a crime that involves the theft of personal information from users. Individuals, corporations, cloud storage, and government websites are all targets for the phishing websites. Anti-phishing technologies based on hardware are commonly utilised, while software-based options are preferred due to cost and operational considerations. Current phishing detection systems have no solution for problems like zero-day phishing assaults. To address these issues, a three-phase attack detection system called the Phishing Attack Detector based on Web Crawler was suggested, which uses a recurrent neural network to precisely detect phishing incidents. Based on the classification of phishing and non-phishing pages, it covers the input features Web traffic, web content, and Uniform Resource Locator (URL).*

Keywords: Attack detection, Recurrent Neural Network, Deep Learning.

REFERENCES

- [1]. Surbhi Gupta et al., "A Literature Survey on Social Engineering Attacks: Phishing Attack," in International Conference on Computing, Communication and Automation (ICCCA2016), 2017, pp. 537-540.
- [2]. Jian Mao, Wenqian Tian, Pei Li, Tao Wei, Zhenkai Liang, "Phishing- Alarm: Robust and Efficient Phishing Detection via Page Component Similarity".
- [3]. Zou Futai, Gang Yuxiang, Pei Bei, Pan Li, Li Linsen, "Web Phishing Detection Based on Graph Mining", Guardian Analytics, "A Practical Guide to Anomaly Detection Implications of meeting new FFIEC minimum expectations for layered security". Accessed: 08 Jan 2018.
- [4]. Ibrahim Waziri Jr., "Website Forgery: Understanding Phishing Attacks Nontechnical Countermeasures," in IEEE 2nd International Conference on Cyber Security and Cloud Computing, 2015, IEEE.
- [5]. Longfei Wu et al., "Effective Defense Schemes for Phishing Attacks on Mobile Computing Platforms," IEEE 2016, pp. 6678-6691.
- [6]. K. Rajitha and D. Vijayalakshmi, "Suspicious urls filtering using optimal rt-pfl: A novel feature selection based web url detection," in Smart Computing and Informatics, S. C. Satapathy, V. Bhateja, and S. Das, Eds. Singapore: Springer Singapore, 2018, pp. 227-235.
- [7]. S. Kim, J. Kim, and B. B. Kang, "Malicious url protection based on attackers' habitual behavioral analysis," Computers Security, vol. 77, pp. 790 - 806, 2018.
- [8]. B. B. Gupta, N. A. G. Arachchilage, and K. E. Psannis, "Defending against phishing attacks: taxonomy of methods, current issues and future directions," Telecommunication Systems, vol. 67, no. 2, pp. 247-267, Feb 2018.
- [9]. A. K. Jain and B. B. Gupta, "A novel approach to protect against phishing attacks at client side using auto-updated white-list," EURASIP Journal on Information Security, vol. 2016, no. 1, p. 9, May 2016.