Phishing Website Detection using Machine Learning Rules with Cryptography Technique

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Abstract: *Phishing, a type of cybersecurity attack aimed at stealing personal information like passwords and credit card numbers, can be mitigated through the use of machine learning techniques for detecting phishing websites. In response, cybersecurity experts are actively seeking reliable and robust detection techniques to identify phishing websites. This research paper focuses on the implementation of machine learning technology for detecting phishing URLs by extracting and analyzing various features from both legitimate and phishing URLs. Support Vector Machine algorithms are employed for this purpose, to identify the most effective algorithm based on accuracy rate, false positive rate, and false negative rate, to enhance phishing detection measures. Cryptography Technique like the RSA algorithm is used to secure encryption method to encrypt the user search data before being stored on the server. The paper further discusses the reasons why ensemble machine learning methods are well-suited for binary phishing classification challenges in real-time detection scenarios, underscoring their efficacy in anti-phishing techniques.*

Keywords: Phishing, cybersecurity, Support Vector Machine algorithms, RSA algorithm rism

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