ABSTRACT

Phishing attempts continue to be a serious concern to people as well as organisations at an age when cyber threats are constantly changing. Traditional techniques for identifying phishing URLs frequently cannot keep up with the ever-changing tactics used by illicit organisations. This article presents Phish Not, a state-of-the-art cloud-based machine-learning system that has been painstakingly designed to improve the precision and quickness of phishing URL detection.

Phish Not employs sophisticated machine-learning algorithms that delve into the intricate dynamics of URLs, scrutinizing their characteristics to discern potential threats. Leveraging the power of cloud computing, the system conducts real-time analyses, enabling the prompt identification and neutralization of phishing threats. Through a combination of lexical analysis, content inspection, and the incorporation of historical URL behavior patterns, Phish Not aspires to provide a robust and adaptable solution to the ever-evolving landscape of phishing attacks.

The cloud-centric architecture of Phish Not not only ensures scalability but also facilitates seamless integration into existing security infrastructures for organizations. Furthermore, the system incorporates continuous learning mechanisms, enabling it to stay abreast of emerging phishing techniques. PhishNot's user-friendly interface and flexible integration capabilities empower security professionals with a potent tool to proactively defend against phishing threats.

In rigorous evaluations, Phish Not demonstrated impressive results, showcasing high accuracy rates in differentiating between legitimate and phishing URLs. The cloud-based deployment model enhances the system's adaptability and responsiveness to the evolving threat landscape, establishing it as a valuable asset in the ongoing battle against cyber threats.

ACRONYM

SDN	Software Defined Networks
DPI	Deep Packet Inspection
URL	Uniform Resource Locator
NLP	Natural Language Processing
HTML	Hyper Text Markup Language
ReLU	Rectified Linear Unit
SVM	Support Vector Machine
CNN	Convolutional Neural Network
DTOF	Decision Tree and Optimal Features
ANN	Artificial Neural Network
NLP	Natural Language Processing
CBR-PDS	A case-based reasoning Phishing detection system

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