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(54) Title of the invention : SYSTEM AND METHOD FOR AUTOMATED MALICIOUS URL DETECTION

(57) Abstract :

The system (100) of the present disclosure employs a hybrid machine learning approach for cyber threat detection, integrating supervised learning (106) and unsupervised learning (108) techniques. The system (100) collects labeled and unlabeled URL data from diverse sources and extracts relevant features for analysis. Supervised models are trained to recognize known malicious patterns, while unsupervised techniques detect unknown threats and anomalies. Through ensemble integration, the system (100) combines the strengths of both approaches, enhancing accuracy and adaptability. Continuous learning and updates ensure resilience against evolving threats. Additionally, the system (100) generates alerts and reports on detected threats, aiding proactive defense measures. By leveraging collective intelligence and dynamic adaptation, the system (100) offers robust protection against phishing and malicious attacks in the ever-changing cyber threat landscape.

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