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(57) Abstract :

This project introduces a pioneering method to combat smishing, a pervasive cybercrime, by lever aging Recurren tNeura lNetwork(RNN) algorithms. Our objective is to enhance the ability to differentiate between legitimate and smishing messages. Through the use of a substantial dataset comprising actual smishing messages and regular SMS data obtained from victims, our approach involves training the RNN model. Our system prioritizes user privacy by not transmitting data to third parties and operates solely on mobile devices. To bolster the classifier's resilience against diverse smishing messages, we introduce EVA, a novel text evasion attack tool. Our RNN-based classifier has demonstrated exceptional accuracy and efficiency during rigorous testing. It also has a negligible impact on mobile devices and offers robust defense against mishing attacks. By utilizing RNN's capabilities, we aim to significantly improve the detection and prevention of smishing attacks, safeguarding mobile users from this prevalent form of cyber crime. Furthermore, our system includes a comprehensive reporting mechanism that enables users to report suspicious messages directly to the appropriate authorities. This feature not only helps in combating smishing but also contributes to the overall efforts to combat cybercrime. Overall,our RNN-based smishing detection system is a comprehensive solution that combines advanced machine learning techniques with user-friendly design to provide robust protection against smishing attacks.

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