

MACHINE LEARNING BASED FRAMEWORK FOR ENHANCING THE SECURITY OF QUICK RESPONSE CODE IN LOW PROCESSING DEVICES

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QR (Quick Response) codes, two-dimensional barcodes capable of encoding diverse information, have become pervasive in numerous fields due to their high information density and resilience. Despite their advantages, QR codes present significant security risks, as malicious actors can embed harmful links leading to phishing sites or malware. This paper explores the manifold applications of QR codes and analyzes prevalent attack scenarios within specific contexts. It highlights the dearth of research focusing on the interplay between security measures and human-computer interaction. The study identifies usable security and security awareness as key challenges and proposes design requirements for QR codes and reader applications to enhance security without compromising usability. Through this work, we aim to foster further research into making QR code processing both secure and user-friendly.