

# AI-Driven Smishing Detection in Android Devices Using TinyBERT and Aquila Optimization

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**(Pt9)Abstract**—The increasing prevalence of smishing (SMS phishing) attacks on mobile devices poses significant security risks, particularly for Android users. Traditional spam detection techniques often fail to accurately distinguish between legitimate and malicious messages due to the complexity and contextual nature of smishing. In this paper, we propose an AI-driven smishing detection approach using TinyBERT for feature extraction and Aquila Optimization (AO) to optimize a deep learning model. With AO-tuned hyperparameters, the proposed model achieved an accuracy of 96.81%, outperforming standard models like GRU, LSTM, and SVM. Our approach offers a robust, efficient solution for Android smishing detection.

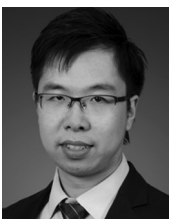
**(Pt9)Keyword**—Smishing Detection, TinyBERT, Aquila Optimization, Android Security, SMS Phishing



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