

# SMS Spam Detection using Machine Learning

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**Abstract:** *Emails are a crucial instrument for achieving the interconnectedness of machines and people worldwide in the global age we live in, when the world is becoming smaller and smaller and everyone is connected to one another. Since the development of communication technology and the exponential increase in internet usage in recent years, emails have become an integral part of our everyday lives. It has also, regrettably, led to the emergence of numerous online scams that employ phishing tactics to trick people into disclosing their personal information. These scams can result in serious financial theft, identity theft, character assassination, and other malicious activities that could have dire repercussions for internet users. Addressing the problem of spam and phishing emails becomes crucial as a result of these problems. Therefore, this project is about detecting phishing and spam e-mails using Natural Language Processing (NLP) techniques. Let's explore methods to identify malicious emails using NLP. This assists in detecting and classifying potentially harmful and spam emails, ultimately preventing harm to user data. This project involves exploration of how different methods are implemented to detect the spam e-mails and the work being done to improve upon the current and possible future scenarios because as the scammers keep evolving and we need to develop and rise up accordingly*

**Keywords:** Spam detection, NLP, Naïve bayes, Spam SMS, Scams