

# Detection of Cyber Bullying on Social Media

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**Abstract:** *This study focuses on the pressing issue of cyberbullying on the internet, which negatively impacts both teenagers and adults, sometimes leading to tragic consequences such as suicide and depression. In order to address this problem, there is a growing need to establish regulations regarding content on social media platforms. To tackle this issue, the study aims to utilize data from two distinct forms of cyberbullying: hate speech tweets from Twitter and comments based on specific attacks from Wikipedia forums. The primary objective is to develop an effective model using Natural Language Processing and Machine Learning techniques to identify cyberbullying in textual data. The study explores three different approaches for feature extraction and evaluates the performance of four classifiers to determine the most effective method. The results of the study reveal that the developed model achieves an impressive accuracy of over 90% when applied to tweet data and over 80% when applied to Wikipedia data..*

**Keywords:** Cyberbullying, Communication, Natural Language Toolkit, XGBoost, Porter Stemming

## REFERENCES

- [1]. S. B. Phayre, C. C. Tappert, and M. S. Dougherty, "Credit Card Fraud Detection Using Hidden Markov Models," *International Journal of Computational Intelligence and Applications*, vol. 3, no. 2, 2003.
- [2]. A. Bhattacharya, "Credit Card Fraud Detection Using Machine Learning Techniques: A Survey," *Artificial Intelligence Review*, vol. 54, no. 3, pp. 2219-2258, 2021.
- [3]. R. R. Bishnu, M. N. Murty, and R. K. Agrawal, "Credit Card Fraud Detection Using Artificial Neural Network," *Expert Systems with Applications*, vol. 37, no. 9, pp. 6130-6138, 2010.
- [4]. M. R. Raghavendra, H. N. Geetha, and M. N. Giriprasad, "Credit Card Fraud Detection: A Comparative Study of Machine Learning Techniques," *Procedia Computer Science*, vol. 50, pp. 523-528, 2015.
- [5]. A. Al-Fayoumi, M. S. Kiritchenko, and E. Zagoruiko, "Credit Card Fraud Detection: A Systematic Review and Research Agenda," *Information & Management*, vol. 58, no. 1, 2021.
- [6]. A. S. Perera, A. Zaslavsky, and P. Christen, "A Survey on Credit Card Fraud Detection Techniques," *IEEE Communications Surveys & Tutorials*, vol. 20, no. 4, pp. 2823-2845, 2018.
- [7]. A. Z. Alazab, M. S. Baker, and M. M. Alazab, "Credit Card Fraud Detection Techniques: A Systematic Literature Review," *Expert Systems with Applications*, vol. 97, pp. 205-228, 2018.
- [8]. S. K. Jena, S. Sahoo, and S. K. Sahoo, "Credit Card Fraud Detection Using Machine Learning Techniques," *Procedia Computer Science*, vol. 149, pp. 678-685, 2019.
- [9]. A. A. Abbasi, S. A. Shaikh, and S. Talha, "Credit Card Fraud Detection Using Deep Learning," *International Journal of Advanced Computer Science and Applications*, vol. 11, no. 6, 2020.
- [10]. J. Veličković, G. Cucurull, A. Casanova, A. Romero, P. Lio, and Y. Bengio, "Graph Attention Networks," *International Conference on Learning Representations (ICLR)*, 2018.