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Fake Twitter Followers Detection using Machine Learning Approach

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Abstract: *Addressing the issue of fake user accounts on social media platforms like Twitter is indeed crucial, and employing artificial intelligence can be a significant step towards mitigating this problem. The proposed research utilizes publicly available information about Twitter users, including their activity patterns, profile details, and tweet content, to assess the authenticity of each account. By leveraging Twitter's API and other data retrieval methods, a machine learning model is developed to classify user accounts as either real or fake. Various machine learning algorithms are applied in this study, including logistic regression, long short-term memory (LSTM), K-means, and random forest, to evaluate the effectiveness of the proposed model. Among these algorithms, the random forest algorithm emerges as the most successful, achieving the highest accuracy score of 0.7557, a precision of 0.7277, and an F1 score of 0.7943.By utilizing machine learning techniques and analyzing diverse features of Twitter user accounts, the proposed model demonstrates promising results in detecting and identifying fake accounts. This research contributes to the ongoing efforts to combat issues such as spamming, trend manipulation, and follower inflation on social media platforms, thereby enhancing the overall integrity and trustworthiness of online interactions.*

Keywords: Fake, Twitter accounts, Social Network, Classification

BIBLIOGRAPHY

[1]. Douglas, "News consumption and the new electronic media," The International Journal of Press/Politics, vol. 11, no. 1, pp. 29–52, 2006. View at: Publisher Site | Google Scholar
[2]. J. Wong, "Almost all the traffic to fake news sites is from facebook, new data show," 2016.View at: Google Scholar
[3]. D. M. J. Lazer, M. A. Baum, Y. Benkler et al., "The science of fake news," Science, vol. 359, no. 6380, pp. 1094–1096, 2018. View at: Publisher Site | Google Scholar
[4]. S. A. García, G. G. García, M. S. Prieto, A. J. M. Guerrero, and C. R. Jiménez, "The impact of term fake news on the scientific community scientific performance and mapping in web of science," Social Sciences, vol. 9, no. 5, 2020. View at: Google Scholar
[5]. A. D. Holan, 2016 Lie of the Year: Fake News, Politifact, Washington, DC, USA, 2016.
[6]. S. Kogan, T. J. Moskowitz, and M. Niessner, "Fake News: Evidence from Financial Markets," 2019, https://ssrn.com/abstract=3237763. View at: Google Scholar
[7]. A. Robb, "Anatomy of a fake news scandal," Rolling Stone, vol. 1301, pp. 28–33, 2017. View at: Google Scholar
[8]. J. Soll, "The long and brutal history of fake news," Politico Magazine, vol. 18, no. 12, 2016. View at: Google Scholar
[9]. J. Hua and R. Shaw, "Corona virus (covid-19) "infodemic" and emerging issues through a data lens: the case of China," International Journal of Environmental Research and Public Health, vol. 17, no. 7, p. 2309, 2020. View at: Publisher Site | Google Scholar
[10]. N. K. Conroy, V. L. Rubin, and Y. Chen, "Automatic deception detection: methods for finding fake news," Proceedings of the Association for Information Science and Technology, vol. 52, no. 1, pp. 1–4, 2015. View at: Publisher Site | Google Scholar

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[11]. F. T. Asr and M. Taboada, "Misinfotext: a collection of news articles, with false and true labels," 2019. View at: Google Scholar

[12]. K. Shu, A. Sliva, S. Wang, J. Tang, and H. Liu, "Fake news detection on social media," ACM SIGKDD Explorations Newsletter, vol. 19, no. 1, pp. 22–36, 2017. View at: Publisher Site | Google Scholar

[13]. S. Vosoughi, D. Roy, and S. Aral, "The spread of true and false news online," Science, vol. 359, no. 6380, pp. 1146–1151, 2018. View at: Publisher Site | Google Scholar

[14]. H. Allcott and M. Gentzkow, "Social media and fake news in the 2016 election," Journal of Economic Perspectives, vol. 31, no. 2, pp. 211–236, 2017. View at: Publisher Site | Google Scholar

[15]. V. L. Rubin, N. Conroy, Y. Chen, and S. Cornwell, "Fake news or truth? using satirical cues to detect potentially misleading news," in Proceedings of the Second Workshop on Computational Approaches to Deception Detection, pp. 7–17, San Diego, CA, USA, 2016.View at: Google Scholar