

## References

- [1] K. Sato, J. Wang, and Z. Cheng, "Credibility Evaluation of Twitter-Based Event Detection by a Mixing Analysis of Heterogeneous Data," *IEEE Access*, vol. 7, pp. 1095–1106, 2019, doi: 10.1109/ACCESS.2018.2886312.
- [2] Z. Drus and H. Khalid, "Sentiment analysis in social media and its application: Systematic literature review," in *Procedia Computer Science*, Elsevier B.V., 2019, pp. 707–714. doi: 10.1016/j.procs.2019.11.174.
- [3] A. Giachanou, P. Rosso, and F. Crestani, "Leveraging Emotional Signals for Credibility Detection," in *Proceedings of the 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'19)*, Jul. 2019, doi: 10.1145/3331184.3331285.
- [4] N. Sitaula, C. K. Mohan, J. Grygiel, X. Zhou, and R. Zafarani, "Credibility-Based fake news detection," in *Lecture notes in social networks*, 2020, pp. 163–182. doi: 10.1007/978-3-030-42699-6\_9.
- [5] C. Yuan, Q. Ma, W. Zhou, J. Han, and S. Hu, "Early Detection of Fake News by Utilizing the Credibility of News, Publishers, and Users based on Weakly Supervised Learning," in *Proceedings of the 28th International Conference on Computational Linguistics. International Committee on Computational Linguistics*, 5444–5454. <https://doi.org/10.18653/v1/2020.coling-main.475>.
- [6] N. Hassan, W. Gomaa, G. Khoriba, and M. Haggag, "Credibility detection in Twitter using word N-gram analysis and supervised machine learning techniques," *International Journal of Intelligent Engineering and Systems*, vol. 13, no. 1, pp. 291–300, Feb. 2020, doi: 10.22266/ijies2020.0229.27.
- [7] M. Azer, M. Taha, H. H. Zayed, and M. Gadallah, "Credibility Detection on Twitter News Using Machine Learning Approach," *International Journal of Intelligent Systems and Applications*, vol. 13, no. 3, pp. 1–10, Jun. 2021, doi: 10.5815/ijisa.2021.03.01.
- [8] S. Z. T. Khoo et al., "Social Media Analytics: A Case Study of Singapore General Election 2020," in *Proceedings 2020 IEEE International Conference on Big Data, Big Data 2020, Institute of Electrical and Electronics Engineers Inc.*, Dec. 2020, pp. 5730–5732. doi: 10.1109/BigData50022.2020.9378358.
- [9] Y. Fang, S. Yang, B. Zhao, and C. Huang, "Cyberbullying detection in social networks using bi-gru with self-attention mechanism," *Information (Switzerland)*, vol. 12, no. 4, 2021, doi: 10.3390/info12040171.
- [10] M. Ghasemi, S. K. Mohammadi, M. Zare, S. Mirjalili, M. Gil, and R. Hemmati, "A new firefly algorithm with improved global exploration and convergence with application to engineering optimization," *Decision Analytics Journal*, vol. 5, Dec. 2022, doi: 10.1016/j.dajour.2022.100125.
- [11] S. M. Tambunan, Y. Nataliani, and E. S. Lestari, "Comparison of Classification with Machine Learning Approaches for Identifying Hoax Tweets on Social Media Twitter," *JEPIN (Jurnal Edukasi Dan Penelitian Informatika)*, vol. 7, no. 2, p. 112, 2021, doi: 10.26418/jp.v7i2.47232. [in Indonesian].
- [12] M. Alkaff, M. A. Miqdad, M. Fachrurrazi, M. N. Abdi, A. Z. Abidin, and R. Amalia, "Hate Speech Detection for Banjarese Languages on Instagram Using Machine Learning Methods," *MATRIK: Jurnal Manajemen, Teknik Informatika dan Rekayasa Komputer*, vol. 22, no. 3, pp. 495–504, Jul. 2023, doi: 10.30812/matrik.v22i3.2939.
- [13] B. Vidgen and T. Yasseri, "Detecting weak and strong Islamophobic hate speech on social media," *Journal of Information Technology and Politics*, vol. 17, no. 1, pp. 66–78, Jan. 2020, doi: 10.1080/19331681.2019.1702607.
- [14] I. Kaibi, E. H. Nfaoui, and H. Satori, "A Comparative Evaluation of Word Embeddings Techniques for Twitter Sentiment Analysis," *2019 International Conference on Wireless Technologies, Embedded and Intelligent Systems (WITS)*, 2019, doi: 10.1109/wits.2019.8723864.
- [15] B. M. G. A. Awienoor and E. B. Setiawan, "Movie Recommendation System Based on Tweets Using Switching Hybrid Filtering with Recurrent Neural Network," *International Journal of Intelligent Engineering and Systems*, vol. 17, no. 2, pp. 277–293, 2024, doi: 10.22266/ijies2024.0430.24.
- [16] R. Afrinanda, L. Efrizoni, W. Agustin, and R. Rahmiati, "Hybrid Model for Sentiment Analysis of Bitcoin Prices using Deep Learning Algorithm," *MATRIK: Jurnal Manajemen, Teknik Informatika dan Rekayasa Komputer*, vol. 22, no. 2, pp. 309–324, Mar. 2023, doi: 10.30812/matrik.v22i2.2640.
- [17] M. K. Hasan and E. B. Setiawan, "Sentiment Analysis of Twitter Data on Bank Central Asia Stocks (BBCA) Using RNN and CNN Model with GloVe Feature Expansion," *2023 IEEE International Conference on Communication, Networks and Satellite (COMNETSAT)*, Nov. 2023, doi: 10.1109/comnetsat59769.2023.10420731.
- [18] K. Poddar, G. B. A. D., and K. S. Umadevi, "Comparison of various machine learning models for accurate detection of fake news," *2019 Innovations in Power and Advanced Computing Technologies (i-PACT)*, Mar. 2019, doi: 10.1109/i-pact44901.2019.8960044.
- [19] I. G. B. J. Abasan and E. B. Setiawan, "Empowering hate speech detection: leveraging linguistic richness and deep learning," *Bulletin of Electrical Engineering and Informatics*, vol. 13, no. 2, pp. 1371–1382, Apr. 2024, doi: 10.11591/eei.v13i2.6938.
- [20] L. Abualigah, Y. Y. Al-Ajlouni, M. Sh. Daoud, M. Altalhi, and H. Migdady, "Fake news detection using recurrent neural network based on bidirectional LSTM and GloVe," *Social Network Analysis and Mining*, vol. 14, no. 1, Feb. 2024, doi: 10.1007/s13278-024-01198-w.
- [21] M. F. Avidiansyah and E. B. Setiawan, "The Influence of Sentiment on the Movement of Bank BCA (BBCA) Shares with the CNN-GRU Classification Model and Feature Expansion with GloVe," in *2023 International Conference on Data Science and Its Applications, ICoDSA 2023*, Institute of Electrical and Electronics Engineers Inc., 2023, pp. 105–110. doi: 10.1109/ICoDSA58501.2023.10277052.
- [22] L. Zhou and X. Bian, "Improved text sentiment classification method based on BiGRU-Attention," in *Journal of Physics: Conference Series*, Institute of Physics Publishing, Nov. 2019. doi: 10.1088/1742-6596/1345/3/032097.
- [23] J. Yan, J. Liu, Y. Yu, and H. Xu, "Water quality prediction in the luan river based on 1-drcnn and bigru hybrid neural network model," *Water (Switzerland)*, vol. 13, no. 9, May 2021, doi: 10.3390/w13091273.
- [24] P. Li et al., "Bidirectional gated recurrent unit neural network for Chinese address element segmentation," *ISPRS Int J Geoinf*, vol. 9, no. 11, Oct. 2020, doi: 10.3390/ijgi9110635.
- [25] L. Li, L. Yang, and Y. Zeng, "Improving Sentiment Classification of Restaurant Reviews with Attention-Based Bi-GRU Neural Network," *Symmetry*, vol. 13, no. 8, p. 1517, Aug. 2021, doi: 10.3390/sym13081517.
- [26] Y. Li, Y. Zhao, Y. Shang, and J. Liu, "An improved firefly algorithm with dynamic self-adaptive adjustment," *PLoS One*, vol. 16, no. 10 October 2021, Oct. 2021, doi: 10.1371/journal.pone.0255951.
- [27] M. Farrell, K. N. Ramadhani, and S. Suyanto, "Combined Firefly Algorithm-Random Forest to Classify Autistic Spectrum Disorders," in *2020 3rd International Seminar on Research of Information Technology and Intelligent Systems, ISRITI 2020*, Institute of Electrical and Electronics Engineers Inc., Dec. 2020, pp. 505–508. doi: 10.1109/ISRITI51436.2020.9315396.
- [28] L. F. Ahyar, S. Suyanto, and A. Arifianto, "Firefly Algorithm-based Hyperparameters Setting of DRNN for Weather Prediction," *2020 International Conference on Data Science and Its Applications (ICoDSA)*, Aug. 2020, doi: 10.1109/icodsa50139.2020.9212921.
- [29] B. Gaye and A. Wulamu, "Sentiment analysis of text classification algorithms using Confusion Matrix," in *Communications in computer and information science*, 2019, pp. 231–241. doi: 10.1007/978-981-15-1922-2\_16.
- [30] K. U. Wijaya, and E. B. Setiawan, "Hate Speech Detection Using Convolutional Neural Network and Gated Recurrent Unit with FastText Feature Expansion on Twitter". *JITEKI: Jurnal Ilmiah Teknik Elektro Komputer Dan Informatika*, 9(3), 619-631. 2023 doi: 10.26555/jiteki.v9i3.26532.

