

REFERENCES

- [1] S. A. Mirlohi Falavarjani, J. Jovanovic, H. Fani, A. A. Ghorbani, Z. Noorian, and E. Bagheri, "On the causal relation between real world activities and emotional expressions of social media users," *Journal of the Association for Information Science and Technology*, vol. 72, no. 6,
- [2] P. K. Wijanarko, D. D. Prastyo, and S. F. Persada, "Business intelligence based on aspect based sentiment analysis (absa) using convolutional neural network on online marketplace product,"
- [3] J. Soni and K. Mathur, "Sentiment analysis based on aspect and context fusion using attention encoder with lstm," *International Journal of Information Technology*, May 2022.
- [4] W. Yin, K. Kann, M. Yu, and H. Schutze, "Comparative study of cnn and rnn for natural language processing," *arXiv preprint arXiv:1702.01923*, 2017.
- [5] A. B. Boot, E. Tjong Kim Sang, K. Dijkstra, and R. A. Zwaan, "How character limit affects language usage in tweets," *Palgrave Communications*, vol. 5, no. 1, 2019.
- [6] T. V. Rampisela and E. Yulianti, "Academic expert finding in Indonesia using word embedding and document embedding: A case study of fasilkom ui," in *2020 8th International Conference on Information and Communication Technology (ICoICT)*, pp. 1–6, IEEE, 2020.
- [7] E. B. Setiawan, D. H. Widyantoro, and K. Surendro, "Feature expansion for sentiment analysis in twitter," in *2018 5th International Conference on Electrical Engineering, Computer Science and Informatics (EECSI)*, pp. 509–513, IEEE, 2018.
- [8] B. A. Hammou, A. A. Lahcen, and S. Mouline, "Towards a real-time processing framework based on improved distributed recurrent neural network variants with fasttext for social big data analytics," *Information Processing & Management*, vol. 57, no. 1, p. 102122, 2020.
- [9] A. Ishaq, S. Sadiq, M. Umer, S. Ullah, S. Mirjalili, V. Rupapara, and M. Nappi, "Improving the prediction of heart failure patients' survival using smote and effective data mining techniques," *IEEE access*, vol. 9, pp. 39707–39716, 2021.
- [10] S. Shumaly, M. Yazdinejad, and Y. Guo, "Persian sentiment analysis of an

online store independent of pre-processing using convolutional neural network with fasttext embeddings,” *PeerJ Computer Science*, vol. 7, p. e422, 2021.

- [11] H. R. Alhakiem, E. B. Setiawan, et al., “Aspect-based sentiment analysis on twitter using logistic regression with fasttext feature expansion,” *Jurnal RESTI (Rekayasa Sistem dan Teknologi Informasi)*, vol. 6, no. 5, pp. 840–846, 2022.
- [12] A. Fernandez, S. Garcia, F. Herrera, and N. V. Chawla, “Smote for learning from imbalanced data: progress and challenges, marking the 15-year anniversary,” *Journal of artificial intelligence research*, vol. 61, pp. 863–905, 2018.
- [13] B. An, W. Wu, and H. Han, “Deep active learning for text classification,” in *Proceedings of the 2nd International Conference on Vision, Image and Signal Processing*, pp. 1–6, 2018.
- [14] S. Lai, L. Xu, K. Liu, and J. Zhao, “Recurrent convolutional neural networks for text classification,” in *Proceedings of the AAAI conference on artificial intelligence*, vol. 29, 2015.
- [15] K. Lu and J. Wu, “Sentiment analysis of film review texts based on sentiment dictionary and svm,” in *Proceedings of the 2019 3rd international conference on innovation in artificial intelligence*, pp. 73–77, 2019