

DAFTAR PUSTAKA

- [1] S. Hinduja and J. W. Patchin, *Bullying Beyond the Schoolyard: Preventing and Responding to Cyberbullying*, 2nd ed. Corwin Press, 2014.
- [2] C.-H. Lee and M. Sanchez, “Cyberbullying: Prevalence, causes, and consequences,” *International Journal of Cyber Criminology*, vol. 12, no. 1, pp. 78–95, 2018.
- [3] D. Jurafsky and J. H. Martin, “Speech and language processing: An introduction to natural language processing, computational linguistics, and speech recognition,” in *Pearson Education*, 2009.
- [4] G. Salton and C. Buckley, “Term-weighting approaches in automatic text retrieval,” *Information Processing Management*, vol. 24, no. 5, pp. 513–523, 1988.
- [5] C. Cortes and V. Vapnik, “Support-vector networks,” *Machine Learning*, vol. 20, no. 3, pp. 273–297, 1995.
- [6] I. T. Jolliffe, “Principal component analysis,” *Springer Series in Statistics*, 2002.
- [7] A. Ray and S. Kumar, “Cyberbullying detection on twitter using machine learning,” *Journal of Computational Social Science*, 2024.
- [8] E. Hendrayani and A. Pratama, “Digital hate speech propagation on social media,” *Social Media Studies*, 2024.
- [9] I. Alfina *et al.*, “Indotoxic2024: Dataset for hate speech in indonesian,” *arXiv preprint arXiv:2406.19349*, 2024.
- [10] S. Paul and S. Saha, “Cyberbert: Bert for cyberbullying identification,” *Multimedia Systems*, vol. 28, no. 6, pp. 1897–1904, 2022.
- [11] J. Devlin, M.-W. Chang, K. Lee, and K. Toutanova, “Bert: Pre-training of deep bidirectional transformers,” *arXiv preprint arXiv:1810.04805*, 2019.
- [12] M. Mozafari, R. Farahbakhsh, and N. Crespi, “Hate speech detection and racial bias mitigation,” *PLOS ONE*, vol. 15, no. 8, p. e0237861, 2020.
- [13] A. Alamsyah, A. Wibowo, and A. Suryani, “Hoax news detection analysis using indobert deep learning methodology,” in *2022 4th International Conference on Cybernetics and Intelligent System (ICORIS)*. IEEE, 2022, pp. 1–6.

- [14] L. R. Hazim and O. Ata, “Textual authenticity in the ai era: Evaluating bert and roberta with logistic regression and neural networks for text classification,” in *2024 International Symposium on Electronics and Telecommunications (ISETC)*, 2024, pp. 1–6.
- [15] D. O. Otieno, A. Siami Namin, and K. S. Jones, “The application of the bert transformer model for phishing email classification,” in *2023 IEEE 47th Annual Computers, Software, and Applications Conference (COMPSAC)*, 2023, pp. 1303–1310.
- [16] J. Yadav, D. Kumar, and D. Chauhan, “Cyberbullying detection using pre-trained bert model,” in *2020 International Conference on Electronics and Sustainable Communication Systems (ICESC)*, 2020, pp. 1096–1100.
- [17] F. S. Amalia and Y. Suyanto, “Offensive language and hate speech detection using bert model,” *Indonesian Journal of Computing and Cybernetics Systems*, vol. 15, no. 2, pp. 129–136, 2021.
- [18] M. Babaeianjelodar, G. P. Prudhvi, S. Lorenz, K. Chen, S. Mondal, S. Dey, and N. Kumar, “Explainable and high-performance hate and offensive speech detection,” *arXiv preprint arXiv:2206.12983*, 2022.
- [19] S. Liang, “Comparative analysis of svm, xgboost and neural network on hate speech classification,” *Jurnal RESTI (Rekayasa Sistem dan Teknologi Informasi)*, vol. 5, no. 5, pp. 3506–3512, 2021.
- [20] Twitter Inc., “Twitter usage statistics,” 2023.
- [21] T. R. Edison, “Social media trends 2023: A global perspective,” *Journal of Digital Communication*, vol. 12, no. 2, pp. 45–60, 2023.
- [22] G. Ray, C. D. McDermott, and M. Nicho, “Cyberbullying on social media: Definitions, prevalence, and impact challenges,” *Journal of Cybersecurity*, vol. 10, no. 1, p. tyae026, 2024.
- [23] A. Matamoros-Fernández and J. Farkas, “Racism, hate speech, and social media: A systematic review and critique,” *Television New Media*, vol. 22, no. 4, pp. 406–430, 2021.
- [24] T. Davidson, D. Warmsley, M. Macy, and I. Weber, “Automated hate speech detection and the problem of offensive language,” *Proceedings of the International AAAI Conference on Web and Social Media*, vol. 11, no. 1, pp. 512–515, 2017.
- [25] J. Ramos, “Using tf-idf to determine word relevance in document queries,” in *Proceedings of the First Instructional Conference on Machine Learning*, 2003.
- [26] J. Brownlee, “The transformer model,” Machine Learning Mastery, n.d.

- [27] T. Mikolov, K. Chen, G. Corrado, and J. Dean, “Efficient estimation of word representations in vector space,” *Advances in Neural Information Processing Systems*, vol. 26, pp. 3111–3119, 2013.
- [28] A. Vaswani, N. Shazeer, N. Parmar, J. Uszkoreit, L. Jones, A. N. Gomez, L. Kaiser, and I. Polosukhin, “Attention is all you need,” in *Advances in Neural Information Processing Systems*, vol. 30, 2017.
- [29] J. Hassannataj Joloudari, S. Hussain, M. A. Nematollahi, R. Bagheri, F. Fazl, R. Alizadehsani, R. Lashgari, and A. Talukder, “Bert-deep cnn: state of the art for sentiment analysis of covid-19 tweets,” *Social Network Analysis and Mining*, vol. 13, p. 14, 07 2023.
- [30] F. Koto, A. Rahimi, J. H. Lau, and T. Baldwin, “Indolem and indobert: A benchmark dataset and pre-trained language model for indonesian nlp,” *arXiv preprint arXiv:2011.00677*, 2020.
- [31] S. Cahyawijaya, G. I. Winata, B. Wilie, K. Vincentio, X. Li, A. Kuncoro, S. Ruder, Z. Y. Lim, H. Lovenia, and P. Fung, “Indonlg: Benchmark and resources for evaluating indonesian natural language generation,” *arXiv preprint arXiv:2104.08200*, 2021.
- [32] A. Wibowo, “Pembangunan model bahasa indobert untuk pemrosesan bahasa alami berbahasa indonesia,” Master’s thesis, Universitas Gadjah Mada, 2020.
- [33] Z.-H. Zhou, *Ensemble Methods: Foundations and Algorithms*. CRC Press, 2012.
- [34] L. Breiman, “Bagging predictors,” *Machine learning*, vol. 24, no. 2, pp. 123–140, 1996.
- [35] T. Chen and C. Guestrin, “Xgboost: A scalable tree boosting system,” *Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, pp. 785–794, 2016.
- [36] D. H. Wolpert, “Stacked generalization,” *Neural networks*, vol. 5, no. 2, pp. 241–259, 1992.
- [37] L. Mason, J. Baxter, P. L. Bartlett, and M. R. Frean, “Boosting algorithms as gradient descent,” in *Advances in Neural Information Processing Systems*, vol. 12, 1999, pp. 512–518.
- [38] B. Clark and F. Lee, “What is gradient boosting?” IBM Think, Apr. 2025.
- [39] J. H. Friedman, “Greedy function approximation: A gradient boosting machine,” *The Annals of Statistics*, vol. 29, no. 5, pp. 1189–1232, 2001.
- [40] A. Natekin and A. Knoll, “Gradient boosting machines, a tutorial,” *Frontiers in Neurorobotics*, vol. 7, p. 21, 2013.

- [41] Y. Wang, Z. Pan, J. Zheng, L. Qian, and L. Mingtao, “A hybrid ensemble method for pulsar candidate classification,” *Astrophysics and Space Science*, vol. 364, 08 2019.
- [42] H. Zhang, F. Cheng, and T. Hu, “Performance analysis of xgboost and other machine learning algorithms for credit risk evaluation,” *Journal of Machine Learning Research*, vol. 19, no. 1, pp. 1234–1256, 2018.
- [43] D. M. W. Powers, “Evaluation: From precision, recall and f-measure to roc, informedness, markedness and correlation,” *Journal of Machine Learning Technologies*, vol. 2, no. 1, pp. 37–63, 2011.
- [44] M. O. Ibromhim and I. Budi, “Multi-label hate speech and abusive language detection in indonesian twitter,” in *Proceedings of the Third Workshop on Abusive Language Online (ALW3)*. Florence, Italy: Association for Computational Linguistics, 2019, pp. 46–57.
- [45] J. Bergstra and Y. Bengio, “Random search for hyper-parameter optimization,” *Journal of Machine Learning Research*, vol. 13, no. Feb, pp. 281–305, 2012.
- [46] F. Pedregosa, G. Varoquaux, A. Gramfort, V. Michel, B. Thirion, O. Grisel, M. Blondel, P. Prettenhofer, R. Weiss, V. Dubourg *et al.*, “Scikit-learn: Machine learning in python,” *Journal of machine learning research*, vol. 12, pp. 2825–2830, 2011.

