DAFTAR PUSTAKA

Aditya, R. 2022. *Case Folding Techniques for Indonesian Social Media Text Preprocessing*. Jurnal IAII Vol. 6, No. 1, Hal: 45-53.

Andhika, F.R., Witanti, W., dan Sabrina, P.N. 2025. Analisis Sentimen Menggunakan Metode IndoBERT. *Ulasan Aplikasi Zoom Menggunakan Fitur Ekstrasi GloVe.* Tersedia: https://doi.org/10.47002/metik.v9i2.1098

April, V.N., Manalu, P.D., Simanjuntak, M., dan Umri, C. (2025). *Implementasi Algoritma Klasifikasi untuk Analisis Sentimen Media Sosial Tiktok Tahun 2025*. April.

Arifin, M. 2023. *Leveraging Emoji Embedding in Sentiment Analysis for Social Media Data.* Journal of Computing Research Vol. 10, No. 2, Hal: 101-115.

Arya, Y., Pratama, R., dan Lestari, A. 2023. *Performance Comparison of Transformer-Based and Recurrent Models for Indonesian Sentiment Analysis*. Journal of Computational Linguistics Indonesia, Vol. 5 No. 1.

Christina, S. 2019. *Sarcasm in Sentiment Analysis of Indonesian Text: A Literature Review.* Jurnal Teknologi Informasi, Vol. 13, No. 2, Hal: 57–64. E-ISSN 2656-0321.

Dan, L., dan Menggunakan, B. 2024. *Analisis Sentimen Aplikasi Shopee, Tokopedia, Lazada dan Blibli Menggunakan Leksikon dan Random Forest.* Vol. 12, No. 3.

Duong, H.-T., & Nguyen-Thi, T.-A. 2021. A review: Preprocessing techniques and data augmentation for sentiment analysis. *Computational Social Networks, 8(1).* https://doi.org/10.1186/s40649-020-00080-x

Fadillah, A. 2022. *Stemming and Lemmatization for Indonesian Language Processing*. OJS UNUD Vol. 8, No. 3, Hal: 200-210.

Hadiprakoso, R. B., Setiawan, H., Yasa, R. N., & Girinoto. (2021). *Text preprocessing for optimal accuracy in Indonesian sentiment analysis using a*

deep learning model with word embedding. AIP Conference Proceedings, 2601, 020012. https://doi.org/10.1063/5.0099676

Harbecke, D., Chen, Y., Hennig, L., dan Alt, C. 2022. *Why only Micro-F1? Class Weighting of Measures for Relation Classification.* Hal: 32–41.

He, P., Gao, J., & Chen, W. 2021. DeBERTaV3: *Improving DeBERTa using ELECTRA-Style Pre-Training with Gradient-Disentangled Embedding Sharing.* arXiv preprint arXiv:2111.09543.

Hidayat, T. 2023. *Emoji Handling in Instagram Comments for Sentiment Classification.* Publication Petra.

Kenton, M.C., Kristina, L., dan Devlin, J. 2019. *BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding*. Hal: 4171–4186.

Khan, A., Majumdar, D., dan Mondal, B. 2025. *Sentiment Analysis of Emoji Fused Reviews Using Machine Learning.* Hal: 1–14.

Koto, F., dan Baldwin, T. 2020. *IndoLEM and IndoBERT: A Benchmark Dataset and Pre-trained Language Model for Indonesian NLP*. Hal: 757–770.

Latif, N. 2023. *Tokenization Approaches in Indonesian Social Media Text Preprocessing.* Jurnal UNM Vol. 5, No. 2, Hal: 55-67.

Lukmana, L.O., L, D.R., dan Elisya, P. 2025. *Aplikasi Threads Instagram di Playstore Menggunakan Algoritma Naive Bayes.* Vol. 13, No. 2.

Mazumder, M. 2024. *A Deep Dive into Classification Metrics (Precision, Recall, F1...). Blog / Artikel Web.* Tersedia: https://manishmazumder5.substack.com/p/beyond-accuracy-a-deep-dive-into

McKinsey & Company. 2021. *The Role of Digital Influence in Consumer Decisions.* McKinsey Global Institute.

Nugroho, M.B., Zyen, A.K., dan Widiastuti, N.A. 2025. *Multiclass Sentiment Analysis of Electric Vehicle Incentive Policies Using IndoBERT and DeBERTa Algorithms*. Vol. 9, No. 3, Hal: 910–919.

Pradipta, D., & Widodo, E. 2023. *Sentiment Analysis on Social Media using Bidirectional Encoder from Transformers (Case Study : Covid–19 Omicron)*. Jurnal Informatika dan Sistem Informasi, Vol. 16, No. 2.

Prasetyo, R.D.L. 2022. *Deteksi Gempa Berdasarkan Data Twitter Menggunakan Decision Tree, Random Forest dan SVM*. Skripsi. Program Studi Teknik Informatika Fakultas Teknologi Informasi Institut Teknologi Sepuluh Nopember Surabaya.

Putra, A. 2022. *Social Media Text Analysis Using NLP in Indonesia.* Jurnal IAII Vol. 5, No. 2, Hal: 120-130.

Putra, R.E. 2024. *Perbandingan Algoritma LSTM dan BiLSTM untuk Analisis Sentimen Multi-Class Media Sosial Twitter.* Vol. 6, Hal: 778–786.

Qian, J., Wang, H., Li, Z., Li, S., & Yan, X. (2022). *Limitations of language models in arithmetic and symbolic induction*. arXiv preprint arXiv:2208.05051.

Rahman, S. 2022. *Enhancing Hate Speech Detection: Leveraging Emoji Preprocessing with BI-LSTM Model*. journal-isi.journal-computing.org, Hal: 77-89.

Saleh, M.F. dan Imanda, R. 2022. *Performance Evaluation of Sentiment Analysis on Balanced and Imbalanced Dataset Using Ensemble Approach.* Indian Journal of Science and Technology Vol. 15, No. 47, Hal: 2501–2512.

Santoso, D. 2022. *Pengaruh Tahapan Preprocessing Terhadap Model IndoBERT dan IndoBERTweet untuk Mendeteksi Emosi pada Komentar Akun Berita Instagram*. JTIIK Vol. 11, No. 1, Hal: 33-46.

Sari, L. 2023. *Identifikasi dan Normalisasi Teks Slang dengan FastText pada Twitter dalam Bahasa Indonesia.* E-Journal Universitas Pendidikan Ganesha Vol. 4, No. 2, Hal: 88-97.

Shevira, S., Agus, I.M., Suarjaya, D., dan Wira, P. 2022. *Pengaruh Kombinasi dan Urutan Pre-Processing pada Tweets Bahasa Indonesia*. Vol. 3, No. 2.

Siringoringo, R., dkk. 2022. *Text Mining dan Klasifikasi Multi Label.* Methomika Journal. Tersedia: https://ejurnal.methodist.ac.id/index.php/methomika/article/download/1498/1126/3365

Subowo, E. 2024. *Implementasi Pembelajaran Mendalam dalam Klasifikasi Sentimen Ulasan Aplikasi: Evaluasi Model BERT, LSTM, dan CNN*. Jurnal Surya Informatika, Vol. 14, No. 2, Hal. 66–70.

Suryanto, B. 2022. *Text Cleaning and Tokenization for Indonesian Social Media Data.* OJS UNUD Vol. 9, No. 1, Hal: 10-25.

Syah, A., Nurdiyansyah, F., & Rahman, A. Y. (2024). *Analisis sentimen aplikasi Shopee, Tokopedia, Lazada dan Blibli menggunakan leksikon dan Random Forest.* Jurnal Informatika dan Teknik Elektro Terapan, 12(3S1). https://doi.org/10.23960/jitet.v12i3S1.5155

Theissler, A., Thomas, M., Burch, M., & Gerschner, F. (2022). *ConfusionVis: Comparative evaluation and selection of multi-class classifiers based on confusion matrices.* Knowledge-Based Systems, 247, 108651. https://doi.org/10.1016/j.knosys.2022.108651

Thohari, A. N. A., Triyono, L., Hestiningsih, I., Suyanto, B., & Yobioktobera, A. (2022). *Performance evaluation of pre-trained convolutional neural network model for skin disease classification.* JUITA: Jurnal Informatika, 10(1), 9–18. https://doi.org/10.30595/juita.v10i1.12041

Timoneda, J.C. 2024. *BERT, RoBERTa or DeBERTa? Comparing Performance Across Transformers Models in Political Science Text.*

Vanacore, A., Pellegrino, M. S., & Ciardiello, A. (2024). Fair evaluation of classifier predictive performance based on binary confusion matrix. *Computational Statistics, 39, 363–383.* https://doi.org/10.1007/s00180-022-01301-9

Velankar, A. 2024. *Mono vs Multilingual BERT for Hate Speech Detection and Text Classification*: A Case Study in Marathi.

Widyananda, W., Maskur, & Fauzi, A. 2025. *Machine Learning and Transformer-based Model for Sentiment Analysis of Indonesian E-Commerce Reviews*. The Indonesian Journal of Computer Science, Vol. 14, No. 4.

Wolf, T., Debut, L., Sanh, V., et al. (2020). Transformers: State-of-the-art natural language processing. *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing: System Demonstrations, 38–45.* https://doi.org/10.18653/v1/2020.emnlp-demos.6

Xu, Q. A., Jayne, C., & Chang, V. (2024). An emoji feature-incorporated multi-view deep learning for explainable sentiment classification of social media reviews. *Technological Forecasting & Social Change, 202, 123326.* https://doi.org/10.1016/j.techfore.2024.123326

Xu, W., Chen, J., Ding, Z., dan Wang, J. 2024. *Text Sentiment Analysis and Classification Based on Bidirectional GRUs Model.* arXiv preprint. Tersedia: https://arxiv.org/abs/2404.17123

Yekti Rahayu, D.W., Umam, K., dan Handayani, M.R. 2024. *Performance of Machine Learning Algorithms on Imbalanced Sentiment Datasets Without Balancing Techniques.* Journal of Applied Informatics and Computing Vol. 8, No. 1.