

REFERENCES

- [1] M. Surya and S. Gunasekaran, "A review on recent scenario of cosmetics," International Journal of Pharmaceutical Sciences Review and Research, vol. 68, no. 1, pp. 190–197, May-June 2021.
- [2] T. Vu, "Service quality and its impact on customer satisfaction," Ph.D. dissertation, VU University, April 2021, dissertation.
- [3] N. U. Saaqib, Gunika, and H. K. Verma, "Analysis of sentiment onamazon product reviews," in 2023 Third International Conference on Secure Cyber Computing and Communication (ICSCCC), 2023, pp. 697–702.
- [4] J. H. Computer, S. M. Honova, V. P. Computer, C. A. Setiawan, I. H. Parmonangan, and Diana, "Sentiment analysis of skincare product reviews in indonesian language using indobert and lstm," in 2023 IEEE 9th Information Technology International Seminar (ITIS), 2023, pp. 1–6.
- [5] P. U. Maharani, N. Amalita, P. A. Amadi, and F. Fadhilah, "Sentiment analysis of goride services on twitter social media using naive bayes algorithm," UNP Journal of Statistics and Data Science, vol. 1, no. 3, pp. 134–139, 2023. [Online]. Available: <https://ujdsds.ppj.unp.ac.id/index.php/ujdsds/article/view/134-139>
- [6] A. Sholihat, F. Bei, R. Ainaya, F. Sembiring, and A. Lattu, "Twitter tweet: Sentiment analysis on illegal investment using naive bayes algorithm," in 2022 IEEE 8th International Conference on Computing, Engineering and Design (ICCED), 2022, pp. 1–5.
- [7] S. M. Isa, G. Nico, and M. Permana, "Indobert for indonesian fake news detection," ICIC Express Letters, vol. 16, no. 3, pp. 289–297, March 2022.
- [8] D. Fimoza, A. Amalia, and T. H. F. Harumy, "Sentiment analysis for movie review in bahasa indonesia using bert," in 2021 International Conference on Data Science, Artificial Intelligence, and Business Analytics (DATABIA), 2021, pp. 27–34.
- [9] M. D. Purbolaksono, Adiwijaya, and S. A. Faraby, "Beauty product review," 2022, this dataset contains reviews of beauty products in Bahasa Indonesia, categorized by Price, Packaging, Product, and Aroma, and classified into Positive, Neutral, and Negative sentiment. [Online]. Available: <https://doi.org/10.34820/FK2/NAZYE1>
- [10] N. P. Arthamevia, Adiwijaya, and M. D. Purbolaksono, "Aspect-based sentiment analysis in beauty product reviews using tf-idf and svm algorithm," in 2021 9th International Conference on Information and Communication Technology (ICoICT), 2021, pp. 197–201.
- [11] M. A. Palomino and F. Aider, "Evaluating the effectiveness of text pre-processing in sentiment analysis," Applied Sciences, vol. 12, no. 17, 2022. [Online]. Available: <https://www.mdpi.com/2076-3417/12/17/8765>
- [12] Z. A. Sejuti and M. S. Islam, "A hybrid cnn-knn approach for identification of covid-19 with 5-fold cross validation," Sensors International, vol. 4, p. 100229, 2023. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S2666351123000037>
- [13] M. Suhaidi, R. A. Kadir, and S. Tiun, "A review of feature extraction methods on machine learning," Journal of Information System and Technology Management, vol. 6, no. 22, pp. 51–59, September 2021.
- [14] F. Koto, A. Rahimi, J. H. Lau, and T. Baldwin, "IndoLEM and IndoBERT: A benchmark dataset and pre-trained language model for Indonesian NLP," in Proceedings of the 28th International Conference on Computational Linguistics, D. Scott, N. Bel, and C. Zong, Eds. Barcelona, Spain (Online): International Committee on Computational Linguistics, Dec. 2020, pp. 757–770. [Online]. Available: <https://aclanthology.org/2020.coling-main.66>
- [15] H. Zakeri, F. M. Nejad, and A. H. Gandomi, Classification Methods and Its Applications in Infrastructure Management. Wiley Data and Cybersecurity, 2022, pp. 353–404.
- [16] D. Prabha, J. Aswini, B. Maheswari, R. Subramanian, R. Nithyanandhan, and P. Girija, "A survey on alleviating the naive bayes conditional independence assumption," in 2022 International Conference on Augmented Intelligence and Sustainable Systems (ICAISS), 2022, pp. 654–657.
- [17] F.-J. Yang, "An implementation of naive bayes classifier," in 2018 International Conference on Computational Science and Computational Intelligence (CSCI), 2018, pp. 301–306.
- [18] K. Riehl, M. Neunteufel, and M. Hemberg, "Hierarchical confusion matrix for classification performance evaluation," Journal of the Royal Statistical Society Series C: Applied Statistics, vol. 72, no. 5, pp. 1394–1412, 07 2023. [Online]. Available: <https://doi.org/10.1093/rssc/qlad057>

- [19] D. Bilianos and G. Mikros, "Sentiment analysis in cross-linguistic context: How can machine translation influence sentiment classification?" *Digital Scholarship in the Humanities*, vol. 38, no. 1, pp. 23–33, 09 2022. [Online]. Available: <https://doi.org/10.1093/lhc/fqac053>
- [20] P. Patwa, G. Aguilar, S. Kar, S. Pandey, S. PYKL, B. Gamback, T. Chakraborty, T. Solorio, and A. Das, "SemEval-2020 task 9: Overview of sentiment analysis of code-mixed tweets," in *Proceedings of the Fourteenth Workshop on Semantic Evaluation*, A. Herbelot, X. Zhu, A. Palmer, N. Schneider, J. May, and E. Shutova, Eds. Barcelona (online): International Committee for Computational Linguistics, Dec. 2020, pp. 774–790. [Online]. Available: <https://aclanthology.org/2020.semeval-1.100>
- [21] A. Poncelas, P. Lohar, A. Way, and J. Hadley, "The impact of indirect machine translation on sentiment classification," *CoRR*, vol. abs/2008.11257, 2020. [Online]. Available: <https://arxiv.org/abs/2008.11257>
- [22] S. Patil, V. Varadarajan, S. Mahadevkar, R. Athawade, L. Maheshwari, S. Kumbhare, Y. Garg, D. Dharrao, P. Kamat, and K. Kotecha, "Enhancing optical character recognition on images with mixed text using semantic segmentation," *Journal of Sensor and Actuator Networks*, vol. 11, no. 4, 2022. [Online]. Available: <https://www.mdpi.com/2224-2708/11/4/63>
- [23] K. L. Tan, C. P. Lee, and K. M. Lim, "A survey of sentiment analysis: Approaches, datasets, and future research," *Applied Sciences*, vol. 13, no. 7, 2023. [Online]. Available: <https://www.mdpi.com/2076-3417/13/7/4550>
- [24] C. C. P. Hapsari, W. Astuti, and M. D. Purbolaksono, "Naive bayes classifier and word2vec for sentiment analysis on bahasa indonesia cosmetic product reviews," in *2021 International Conference on Data Science and Its Applications (ICoDSA)*, 2021, pp. 22–27.
- [25] E. Alshdaifat, D. Alshdaifat, A. Alsarhan, F. Hussein, and S. M. F. S. El-Salhi, "The effect of preprocessing techniques, applied to numeric features, on classification algorithms' performance," *Data*, vol. 6, no. 2, 2021. [Online]. Available: <https://www.mdpi.com/2306-5729/6/2/11>
- [26] S. M. Isa, R. Suwandi, and Y. Pricilia, "Optimizing the hyperparameter of feature extraction and machine learning classification algorithms," *International Journal of Advanced Computer Science and Applications*, 2019. [Online]. Available: <https://api.semanticscholar.org/CorpusID:106404940>
- [27] Z. Kastrati, F. Dalipi, A. S. Imran, K. P. Nuci, and M. A. Wani, "Sentiment analysis of students' feedback with nlp and deep learning: A systematic mapping study," *Applied Sciences*, vol. 11, no. 9, 2021. [Online]. Available: <https://www.mdpi.com/2076-3417/11/9/3986>
- [28] X. Zhang, X. Qi, and Z. Teng, "Performance evaluation of reddit comments using machine learning and natural language processing methods in sentiment analysis," 2024, 11 pages, 5 figures, to be published in *Computational and Experimental Simulations in Engineering - Proceedings of ICCES 2024 - Volume 2*. [Online]. Available: <https://arxiv.org/abs/2405.16810>
- [29] A. S. Talaat, "Sentiment analysis classification system using hybrid bert models," *Journal of Big Data*, vol. 10, no. 1, p. 110, 2023. [Online]. Available: <https://doi.org/10.1186/s40537-023-00781-w>
- [30] I. H. Sarker, A. S. M. Kayes, and P. Watters, "Effectiveness analysis of machine learning classification models for predicting personalized context-aware smartphone usage," *Journal of Big Data*, vol. 6, no. 1, p. 57, 2019. [Online]. Available: <https://doi.org/10.1186/s40537-019-0219-y>