

## Daftar Pustaka

- [1] D. Wu, Q. Chen, X. Chen, F. Han, Z. Chen, and Y. Wang, "The blood-brain barrier: structure, regulation, and drug delivery," vol. 8, no. 1, p. 217, 2023. doi: 10.1038/s41392-023-01481-w.
- [2] X. Tong *et al.*, "Blood-brain barrier penetration prediction enhanced by uncertainty estimation," *J Cheminform*, vol. 14, no. 1, p. 44, 2022, doi: 10.1186/s13321-022-00619-2.
- [3] S. Shamshirband, D. Petković, N. T. Pavlović, S. Ch, T. A. Altameem, and A. Gani, "Support vector machine firefly algorithm based optimization of lens system," *Appl Opt*, vol. 54, no. 1, pp. 37-45, 2015, doi: 10.1364/ao.54.000037.
- [4] D. Zhang *et al.*, "A Genetic Algorithm Based Support Vector Machine Model for Blood-Brain Barrier Penetration Prediction," *Biomed Res Int*, vol. 2015, p. 292683, 2015, doi: 10.1155/2015/292683.
- [5] B. Shaker *et al.*, "LightBBB: Computational prediction model of blood-brain-barrier penetration based on LightGBM," *Bioinformatics*, vol. 37, no. 8, pp. 1135-1139, 2021, doi: 10.1093/bioinformatics/btaa918.
- [6] H. Sakiyama, M. Fukuda, and T. Okuno, "Prediction of blood-brain barrier penetration (Bbbp) based on molecular descriptors of the free-form and in-blood-form datasets," *Molecules*, vol. 26, no. 24, p. 7428, 2021, doi: 10.3390/molecules26247428.
- [7] Y. Ding, X. Jiang, and Y. Kim, "Relational graph convolutional networks for predicting blood-brain barrier penetration of drug molecules," *Bioinformatics*, vol. 38, no. 10, pp. 2826-2831, 2022, doi: 10.1093/bioinformatics/btac211.
- [8] M. Singh, R. Divakaran, L. S. K. Konda, and R. Kristam, "A classification model for blood brain barrier penetration," *J Mol Graph Model*, vol. 96, no. 8, pp. 899-903, 2020, doi: 10.1016/j.jmgm.2019.107516.
- [9] M. Ghasemi, S. kakhoda 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, no. 7, p. 100125, 2022, doi: 10.1016/j.dajour.2022.100125.
- [10] I. F. Martins, A. L. Teixeira, L. Pinheiro, and A. O. Falcao, "A Bayesian approach to in Silico blood-brain barrier penetration modeling," *J Chem Inf Model*, vol. 52, no. 6, pp. 1686-97, 2012, doi: 10.1021/ci300124c.
- [11] P. A. Brown and R. A. Anderson, "A methodology for preprocessing structured big data in the behavioral sciences," *Behav Res Methods*, vol. 55, no. 4, pp. 1818-1838, 2023, doi: 10.3758/s13428-022-01895-4.
- [12] Y. Zhou, L. Ma, W. Ni, and C. Yu, "Data Enrichment as a Method of Data Preprocessing to Enhance Short-Term Wind Power Forecasting," *Energies (Basel)*, vol. 16, no. 5, p. 2094, 2023, doi: 10.3390/en16052094.
- [13] D. Varma, A. Nehansh, and P. Swathy, "Data Preprocessing Toolkit: An Approach to Automate Data Preprocessing," *International Journal of Scientific Research in Engineering and Management*, vol. 07, no. 03, 2023, doi: 10.55041/ijrsrem18270.
- [14] V. Werner de Vargas, J. A. Schneider Aranda, R. dos Santos Costa, P. R. da Silva Pereira, and J. L. Victória Barbosa, "Imbalanced data preprocessing techniques for machine learning: a systematic mapping study," *Knowl Inf Syst*, vol. 65, no. 1, pp. 31-57, 2023, doi: 10.1007/s10115-022-01772-8.
- [15] J. Goyal and R. R. Sinha, "A New Improved Prediction of Software Defects Using Machine Learning-based Boosting Techniques with NASA Dataset," *International Journal on Recent and Innovation Trends in Computing and Communication*, vol. 11, no. 10s, pp. 492-504, 2023, doi: 10.17762/ijritcc.v11i10s.7659.
- [16] N. F. Johari, A. M. Zain, N. H. Mustaffa, and A. Udin, "Firefly algorithm for optimization problem," in *Applied Mechanics and Materials*, vol. 421, pp. 512-517, 2013. doi: 10.4028/www.scientific.net/AMM.421.512.
- [17] J. W. Harahap, F. Nhita, and I. Kurniawan, "Microarray-Based Classification Model of Parkinson Identification by using Firefly Algorithm-Support Vector Machine," in *2022 10th International Conference on Information and Communication Technology, ICoICT 2022*, 2022. doi: 10.1109/ICoICT55009.2022.9914897.
- [18] I. Naseer, T. Masood, S. Akram, A. Jaffar, M. Rashid, and M. A. Iqbal, "Lung Cancer Detection Using Modified AlexNet Architecture and Support Vector Machine," *Computers, Materials and Continua*, vol. 74, no. 1, pp. 2039-2054, 2023, doi: 10.32604/cmc.2023.032927.
- [19] I. Cardoza, J. P. García-Vázquez, A. Díaz-Ramírez, and V. Quintero-Rosas, "Convolutional Neural Networks Hyperparameter Tuning for Classifying Firearms on Images," *Applied Artificial Intelligence*, vol. 36, no. 1, 2022, doi: 10.1080/08839514.2022.2058165.
- [20] Made Hanindia Prami Swari, Dio Farrel Putra Rachmawan, and Chrystia Aji Putra, "Multinomial Optimization of Naïve Bayes Through the Implementation of Particle Swarm Optimization," *Technium: Romanian Journal of Applied Sciences and Technology*, vol. 16, no. 1, pp. 169-175, 2023, doi: 10.47577/technium.v16i.9977.
- [21] L. Zhang *et al.*, "Improving Subseasonal-to-Seasonal forecasts in predicting the occurrence of extreme precipitation events over the contiguous U.S. using machine learning models," *Atmos Res*, vol. 281, no. 2, pp. 106502, 2023, doi: 10.1016/j.atmosres.2022.106502.
- [22] M. G. Seok, W. J. Tan, B. Su, and W. Cai, "Hyperparameter Tuning in Simulation-based Optimization for Adaptive Digital-Twin Abstraction Control of Smart Manufacturing System," in *ACM International Conference Proceeding Series*, pp. 61-68, 2022. doi: 10.1145/3518997.3531024.
- [23] A. M. Elshewey, M. Y. Shams, N. El-Rashidy, A. M. Elhady, S. M. Shohieb, and Z. Tarek, "Bayesian Optimization with Support Vector Machine Model for Parkinson Disease Classification," *Sensors*, vol. 23, no. 4, p. 2085, 2023, doi: 10.3390/s23042085.
- [24] C. Avci, M. Budak, N. Yagmur, and F. B. Balcik, "Comparison between random forest and support vector machine

- algorithms for LULC classification,” *International Journal of Engineering and Geosciences*, vol. 8, no. 1, pp. 1-10, 2023, doi: 10.26833/ijeg.987605.
- [25] D. K. Jana, P. Bhunia, S. Das Adhikary, and A. Mishra, “Analyzing of salient features and classification of wine type based on quality through various neural network and support vector machine classifiers,” *Results in Control and Optimization*, vol. 11, p. 100219, 2023, doi: 10.1016/j.rico.2023.100219.
- [26] J. Cervantes, F. Garcia-Lamont, L. Rodríguez-Mazahua, and A. Lopez, “A comprehensive survey on support vector machine classification: Applications, challenges and trends,” *Neurocomputing*, vol. 408, no. 7, pp. 189-215, 2020, doi: 10.1016/j.neucom.2019.10.118.
- [27] F. Rahman, K. M. Lhaksmana, and I. Kurniawan, “Implementation of Simulated Annealing-Support Vector Machine on QSAR Study of Fusidic Acid Derivatives as Anti-Malarial Agent,” in *6th International Conference on Interactive Digital Media, ICIDM 2020*, pp. 1-4, 2020. doi: 10.1109/ICIDM51048.2020.9339632.
- [28] J. B. Balasubramanian, R. D. Boes, and V. Gopalakrishnan, “A novel approach to modeling multifactorial diseases using Ensemble Bayesian Rule classifiers,” *J Biomed Inform*, vol. 107, p. 103455, 2020, doi: 10.1016/j.jbi.2020.103455.
- [29] Sunardi, A. Yudhana, and S. A. Wijaya, “Application of Median and Mean Filtering Methods for Optimizing Face Detection in Digital Photo,” *Revue d’Intelligence Artificielle*, vol. 37, no. 2, pp. 291-297, 2023, doi: 10.18280/ria.370206.
- [30] M. E. Özbek, “A flexible approach for biometric menagerie on user classification of keystroke data,” *Journal of Electrical Engineering*, vol. 74, no. 1, pp. 23-31, 2023, doi: 10.2478/jee-2023-0003.
- [31] J. Li, H. Sun, and J. Li, “Beyond confusion matrix: learning from multiple annotators with awareness of instance features,” *Mach Learn*, vol. 112, no. 3, pp. 1051-1075, 2023, doi: 10.1007/s10994-022-06211-x.
- [32] D. Valero-Carreras, J. Alcaraz, and M. Landete, “Comparing two SVM models through different metrics based on the confusion matrix,” *Comput Oper Res*, vol. 152, no. 1, p. 106131, 2023, doi: 10.1016/j.cor.2022.106131.
- [33] D. Krstinic, L. Seric, and I. Slapnicar, “Comments on ‘MLCM: Multi-Label Confusion Matrix,’” *IEEE Access*, vol. 11, pp. 40692-40697, 2023, doi: 10.1109/ACCESS.2023.3267672.
- [34] T. F. Monaghan *et al.*, “Foundational statistical principles in medical research: Sensitivity, specificity, positive predictive value, and negative predictive value,” vol. 57, no. 5, p. 503, 2021. doi: 10.3390/medicina57050503.
- [35] M. Yamasaki *et al.*, “The Paris System for reporting urinary cytology improves the negative predictive value of high-grade urothelial carcinoma,” *BMC Urol*, vol. 22, no. 1, p. 51, 2022, doi: 10.1186/s12894-022-01005-8.
- [36] D. Prapruttam, S. Klawandee, P. Tangkittithaworn, and S. Wongwaisayawa, “Effect of Alvarado Score on the Negative Predictive Value of Nondiagnostic Ultrasound for Acute Appendicitis,” *J Med Ultrasound*, vol. 30, no. 2, pp. 125-129, 2022, doi: 10.4103/jmu.jmu\_139\_21.
- [37] N. Bovo, S. Momjian, R. Gondar, P. Bijlenga, K. Schaller, and C. Boëx, “Sensitivity and Negative Predictive Value of Motor Evoked Potentials of the Facial Nerve,” *J Neurol Surg A Cent Eur Neurosurg*, vol. 82, no. 4, pp. 338-41, 2021, doi: 10.1055/s-0040-1719026.
- [38] N. Sinha and G. Balayla, “Sequential battery of COVID-19 testing to maximize negative predictive value before surgeries,” vol. 47, no. 2, p. e20202634, 2020. doi: 10.1590/0100-6991E-20202634.
- [39] K. Meijer and S. Schulman, “The absence of ‘minor’ risk factors for recurrent venous thromboembolism: A systematic review of negative predictive values and negative likelihood ratios,” *Journal of Thrombosis and Haemostasis*, vol. 7, no. 10, p. 1619-28, 2009, doi: 10.1111/j.1538-7836.2009.03557.x.
- [40] E. A. Martin, J. C. Heseltine, and K. E. Creevy, “The Evaluation of the Diagnostic Value of a PCR Assay When Compared to a Serologic Micro-Agglutination Test for Canine Leptospirosis,” *Front Vet Sci*, vol. 9, p. 815103, 2022, doi: 10.3389/fvets.2022.815103.
- [41] “J Comput Chem - 2010 - Yap - PaDEL-descriptor An open source software to calculate molecular descriptors and fingerprints.pdf.”
- [42] X.-S. Yang, *Nature-inspired metaheuristic algorithms*, 2. ed. Frome: Luniver Press, 2010.