

## DAFTAR PUSTAKA

- [1] F. N. Rahmah, "Problematika anak tunarungu dan cara mengatasinya," *Quality*, vol. 6, no. 1, pp. 1–15, 2018.
- [2] E. Padmalatha, S. Sailekya, R. R. Reddy, C. A. Krishna, and K. Divyarsha, "Sign language recognition," *International Journal of Recent Technology and Engineering (IJRTE)*, vol. 8, no. 3, pp. 2128–2137, 2019.
- [3] R. A. Mursita, "Respon tunarungu terhadap penggunaan sistem bahasa isyarat indonesia (sibi) dan bahasa isyarat indonesia (bisindo) dalam komunikasi," *Inklusi*, vol. 2, no. 2, pp. 221–232, 2015.
- [4] S. Ren, K. He, R. Girshick, and J. Sun, "Faster r-cnn: Towards real-time object detection with region proposal networks," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2017.
- [5] H. Fujiyoshi, T. Hirakawa, and T. Yamashita, "Deep learning-based image recognition for autonomous driving," *IATSS research*, vol. 43, no. 4, pp. 244–252, 2019.
- [6] S. Sivanandam and R. J., "Deep learning techniques for medical image segmentation: Achievements and challenges," *Biomedical Signal Processing and Control*, 2020.
- [7] S. Paul and S. K. Acharya, "A comparative study on facial recognition algorithms," in *e-journal-First Pan IIT International Management Conference–2018*, 2020.
- [8] P. Wang, E. Fan, and P. Wang, "Comparative analysis of image classification algorithms based on traditional machine learning and deep learning," *Pattern Recognition Letters*, vol. 141, pp. 61–67, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0167865520302981>
- [9] M. F. Naufal, "Analisis perbandingan algoritma svm, knn, dan cnn untuk klasifikasi citra cuaca," *Jurnal Teknologi Informasi dan Ilmu Komputer*, vol. 8, no. 2, p. 311–318, Mar. 2021. [Online]. Available: <http://dx.doi.org/10.25126/jtiik.2021824553>
- [10] I. Thira, D. Riana, A. Ilhami, B. Dwinanda, and H. Choerunisya, "Pengenalan alfabet sistem isyarat bahasa indonesia (sibi) menggunakan convolutional neural network," *Jurnal Algoritma*, vol. 20, pp. 421–432, 10 2023.
- [11] D. Permana and J. Sutopo, "Aplikasi pengenalan abjad sistem isyarat bahasa indonesia (sibi) dengan algoritma yolov5 mobile application alphabet recognition of indonesian language sign system (sibi) using yolov5 algorithm," *Jurnal Simantec*, vol. 11, pp. 231–230, 06 2023.

- [12] F. Damatraseta, R. Novariany, and M. A. Ridhani, "Real-time bisindo hand gesture detection and recognition with deep learning cnn," *Jurnal Informatika Kesatuan*, vol. 1, pp. 71–80, 2021.
- [13] N. H. Ae, M. I. Zul *et al.*, "Aplikasi penerjemah bahasa isyarat indonesia menjadi suara berbasis android menggunakan tensorflow," *Jurnal Komputer Terapan*, vol. 7, no. 1, pp. 74–83, 2021.
- [14] M. Sholawati, K. Auliasari, and F. Ariwibisono, "Pengembangan aplikasi pengenalan bahasa isyarat abjad sibi menggunakan metode convolutional neural network (cnn)," *JATI (Jurnal Mahasiswa Teknik Informatika)*, vol. 6, no. 1, pp. 134–144, 2022.
- [15] D. E. Birba, "A comparative study of data splitting algorithms for machine learning model selection," Master's thesis, KTH, School of Electrical Engineering and Computer Science (EECS), 2020.
- [16] I. Muraina, "Ideal dataset splitting ratios in machine learning algorithms: general concerns for data scientists and data analysts," in *7th international Mardin Artuklu scientific research conference*, 2022, pp. 496–504.
- [17] N. Ahmad, E. S. Wijaya, C. Tjoaquin, H. Lucky, and I. A. Iswanto, "Transforming sign language using cnn approach based on bisindo dataset," in *2023 International Conference on Informatics, Multimedia, Cyber and Informations System (ICIMCIS)*. IEEE, 2023, pp. 543–548.
- [18] P. A. Nugroho, I. Fenriana, and R. Arijanto, "Implementasi deep learning menggunakan convolutional neural network (cnn) pada ekspresi manusia," *Algor*, vol. 2, no. 1, pp. 12–20, 2020.
- [19] A. Krizhevsky, I. Sutskever, and G. E. Hinton, "Imagenet classification with deep convolutional neural networks," in *Advances in Neural Information Processing Systems*, F. Pereira, C. Burges, L. Bottou, and K. Weinberger, Eds., vol. 25. Curran Associates, Inc., 2012. [Online]. Available: [https://proceedings.neurips.cc/paper\\_files/paper/2012/file/c399862d3b9d6b76c8436e924a68c45b-Paper.pdf](https://proceedings.neurips.cc/paper_files/paper/2012/file/c399862d3b9d6b76c8436e924a68c45b-Paper.pdf)
- [20] M. Zufar and B. Setiyono, "Convolutional neural networks untuk pengenalan wajah secara real-time," *Jurnal Sains dan Seni ITS*, vol. 5, no. 2, p. 128862, 2016.
- [21] J. Moolayil, *Learn Keras for Deep Neural Networks: A Fast-Track Approach to Modern Deep Learning with Python*. Berkeley, CA: Apress, 2019. [Online]. Available: <https://doi.org/10.1007/978-1-4842-4240-7>
- [22] R. Yamashita, M. Nishio, R. K. G. Do, and K. Togashi, "Convolutional neural networks: an overview and application in radiology," *Insights into Imaging*, vol. 9, pp. 611–629, 8 2018.

- [23] M. Elgendy, *Deep Learning for Vision Systems*. Shelter Island, NY: Manning Publications, 2020. [Online]. Available: <https://www.manning.com/books/deep-learning-for-vision-systems>
- [24] A. Yanuar, “Fully-connected layer cnn dan implementasinya,” *Universitas Gadjah Mada Menara Ilmu Machine Learning FullyConnected Layer CNN dan Implementasinya Comments*, 2018.
- [25] K. O’Shea and R. Nash, “An introduction to convolutional neural networks,” *arXiv preprint arXiv:1511.08458*, 2015, accessed: 2025-01-21. [Online]. Available: <https://arxiv.org/abs/1511.08458>
- [26] N. Bačanin Džakula *et al.*, “Convolutional neural network layers and architectures,” in *Sinteza 2019-International Scientific Conference on Information Technology and Data Related Research*. Singidunum University, 2019, pp. 445–451.
- [27] K. Banerjee, V. Prasad C, R. R. Gupta, K. Vyas, A. H, and B. Mishra, “Exploring alternatives to softmax function,” *arXiv preprint arXiv:2011.11538*, 2020. [Online]. Available: <https://arxiv.org/abs/2011.11538>
- [28] M. Mustakim and G. Oktaviani, “Algoritma k-nearest neighbor classification sebagai sistem prediksi predikat prestasi mahasiswa,” *SITEKIN: Jurnal Sains, Teknologi dan Industri*, vol. 13, no. 2, pp. 195–202, 2016.
- [29] B. Kumar, D. Gupta, and R. S. Goswami, “Classification of student’s confusion level in e-learning using machine learning,” *International Journal of Innovative Technology and Exploring Engineering*, vol. 9, pp. 346–351, 2019.
- [30] S. Narkhede, “Understanding confusion matrix,” *Towards Data Science*, vol. 180, no. 1, pp. 1–12, 2018.

U N I V E R S I T A S  
M U L T I M E D I A  
N U S A N T A R A