

DAFTAR PUSTAKA

- [1] Y. O. Banusu and A. D. Firmanto, “Kebahagiaan Dalam Ruang Keseharian Manusia,” *Forum Fam. Plan. West. Hemisph.*, vol. 49, no. 2, pp. 51–61, 2020, doi: 10.35312/forum.v49i2.301.
- [2] Wanda Hamidah, T. S. B. Irawan, N. A. P. Hasbullah, and A. B. Kaswar, “Deteksi Nominal Uang Kertas Menggunakan OCR (Optical Character Recognition),” *Techno Xplore J. Ilmu Komput. dan Teknol. Inf.*, vol. 7, no. 2, pp. 72–76, 2022, doi: 10.36805/technoexplore.v7i2.2123.
- [3] H. Jaya *et al.*, *Kecerdasan Buatan*, vol. 53, no. 9. 2018.
- [4] A. O. P. Dewi, “Kecerdasan Buatan sebagai Konsep Baru pada Perpustakaan,” *Anuva J. Kaji. Budaya, Perpustakaan, dan Inf.*, vol. 4, no. 4, pp. 453–460, 2020, doi: 10.14710/anuva.4.4.453-460.
- [5] M. A. Mulya, Zaenul Arif, and Syefudin, “Tinjauan Pustaka Sistematis : Penerapan Metode Gabor Wavelet Pada Computer Vision,” *J. Comput. Sci. Technol.*, vol. 1, no. 2, pp. 83–88, 2023, doi: 10.59435/jocstec.v1i2.78.
- [6] P. R. Aningtyas, A. Sumin, and S. Wirawan, “Creating an *Object* Detection Application Using the TensorFlow *Object* Detection API by Utilizing MobileNet V2 SSD as a Pre-Trained Model,” *J. Ilm. Komputasi*, vol. 19, no. 3, pp. 421–430, 2020.
- [7] E. C. Rahmad *et al.*, “*Object* Detection System Sebagai Alat Bantu Mendeteksi Objek Sekitar untuk Penyandang Tunanetra,” pp. 1–1, 2020.
- [8] A. T. Putra, K. Usman, and S. Saidah, “Webinar Student Presence System Based on Regional Convolutional Neural Network Using Face Recognition,” *J. Tek. Inform.*, vol. 2, no. 2, pp. 109–118, 2021, doi: 10.20884/1.jutif.2021.2.2.82.
- [9] J. R. Kala, D. M. Kre, A. N. Gnassou, J. R. K. Kala, Y. M. A. Akpablin, and T. Coulibaly, “Assets management on electrical grid using Faster-RCNN,” *Ann. Oper. Res.*, vol. 308, no. 1–2, pp. 307–320, 2022, doi: 10.1007/s10479-020-03650-4.
- [10] R. Gandhi, “R-CNN, Fast R-CNN, Faster R-CNN, YOLO — *Object*

- Detection Algorithms,” *Toward Data Science*, 2018. <https://towardsdatascience.com/r-cnn-fast-r-cnn-faster-r-cnn-yolo-object-detection-algorithms-36d53571365e>
- [11] Muhammad Raid Naufal and Rahmi Eka Putri, “Sistem Klasifikasi Penumpang Bus Trans Padang Berdasarkan Pakaian Menggunakan Metode Image Processing,” *Chipset*, vol. 1, no. 02, pp. 79–90, 2020, doi: 10.25077/chipset.1.02.79-90.2020.
- [12] F. Naufal Ihsan Dhuha, A. Luhur Prasasti, and ud Adhi Saputra, “Sistem Inspeksi Visual Kecacatan Pada Sel Baterai Lithium Menggunakan Cnn 2 Dimensi Visual Inspection System of Defects on Lithium Battery Cell Using 2 Dimension Cnn,” vol. 8, no. 5, p. 6694, 2021.
- [13] R. Girshick, “Fast R-CNN,” *Proc. IEEE Int. Conf. Comput. Vis.*, vol. 2015 Inter, pp. 1440–1448, 2015, doi: 10.1109/ICCV.2015.169.
- [14] Y. Rizki, R. Medikawati Taufiq, H. Mukhtar, and D. Putri, “Klasifikasi Pola Kain Tenun Melayu Menggunakan Faster R-CNN,” *IT J. Res. Dev.*, vol. 5, no. 2, pp. 215–225, 2021, doi: 10.25299/itjrd.2021.vol5(2).5831.
- [15] G. Thiodorus, A. Prasetia, L. A. Ardhani, and N. Yudistira, “Klasifikasi citra makanan/non makanan menggunakan metode Transfer Learning dengan model Residual Network,” *Teknologi*, vol. 11, no. 2, pp. 74–83, 2021, doi: 10.26594/teknologi.v11i2.2402.
- [16] Suyanto, K. N. Ramadhani, and S. Mandala, *Deep Learning Modernisasi Machine Learning untuk Big Data*, 1st ed. Bandung: Informatika Bandung, 2019.
- [17] B. M. Sujatmiko, E. Yudaningtyas, and P. Mudji Raharjo, “Convolution Neural Network Dengan Desain Jaringan Resnet Sebagai Metode Klasifikasi Tumor Kulit,” *J. Simantec*, vol. 11, no. 1, pp. 53–64, 2022, doi: 10.21107/simantec.v11i1.14083.
- [18] R. C. Gonzalez and R. E. Woods, *Digital Image Processing*. 2018.
- [19] A. K. Panggabean, A. Syahfaridzah, and N. A. Ardiningih, “Mendeteksi Objek Berdasarkan Warna Dengan Segmentasi Warna Hsv Menggunakan Aplikasi Matlab,” *METHOMIKA J. Manaj. Inform. dan Komputerisasi*

- Akunt.*, vol. 4, no. 2, pp. 94–97, 2021, doi: 10.46880/jmika.vol4no2.pp94-97.
- [20] Yohannes and J. Petrus, “Klasifikasi mamalia menggunakan extreme gradient boosting berdasarkan fitur histogram of oriented gradient,” *J. Ilm. Betrik*, vol. 13, no. 03, pp. 363–370, 2022.
- [21] K. M. Azhar, I. Santoso, and Y. A. A. Soetrisno, “Implementasi Deep Learning Menggunakan Metode Convolutional Neural Network Dan Algoritma Yolo Dalam Sistem Pendeteksi Uang Kertas Rupiah Bagi Penyandang Low Vision,” *Transient J. Ilm. Tek. Elektro*, vol. 10, no. 3, pp. 502–509, 2021, doi: 10.14710/transient.v10i3.502-509.
- [22] M. M. Ibrahim, R. Rahmadewi, L. Nurpulaela, F. Teknik, and U. S. Karawang, “PENDETEKSIAN NOMINAL UANG PADA GAMBAR MENGGUNAKAN CONVOLUTIONAL NEURAL NETWORK : INTEGRASI METODE PRA- PEMROSESAN CITRA DAN KLASIFIKASI BERBASIS CNN,” vol. 7, no. 2, pp. 1395–1400, 2023.
- [23] F. Charli, H. Syaputra, M. Akbar, S. Sauda, and F. Panjaitan, “Implementasi Metode Faster Region Convolutional Neural Network (Faster R-CNN) Untuk Pengenalan Jenis Burung Lovebird,” *J. Inf. Technol. Ampera*, vol. 1, no. 3, pp. 185–197, 2020, doi: 10.51519/journalita.volume1.issue3.year2020.page185-197.
- [24] S. T. E. Putri and A. Fahrurozi, “Pendeteksian Objek Pada Citra Hewan Karnivora Dan Herbivora Menggunakan Faster R-Cnn,” *J. Ilm. Inform. Komput.*, vol. 27, no. 1, pp. 32–42, 2022, doi: 10.35760/ik.2022.v27i1.5858.
- [25] L. Faizal, “Identifikasi Sampah Plastik Menggunakan Algoritma Deep Learning,” vol. 6, pp. 162–171, 2023.
- [26] S. Megawan, W. S. Lestari, and A. Halim, “Deteksi Non-Spoofing Wajah pada Video secara Real Time Menggunakan Faster R-CNN,” *J. Inf. Syst. Res.*, vol. 3, no. 3, pp. 291–299, 2022, doi: 10.47065/josh.v3i3.1519.
- [27] D. F. Azizah, A. P. Wibawa, and L. Budiarto, “Hakikat Epistemologi Artificial Intelligence,” vol. 1, no. 8, pp. 592–598, 2021, doi: 10.17977/um068v1i82021p592-598.

- [28] P. D. Kusuma, *Machine Learning Teori, Program, dan Studi Kasus*. Yogyakarta: Deepublish, 2020.
- [29] I. D. Id, *MACHINE LEARNING: Teori, Studi Kasus dan Implementasi Menggunakan Python*, 1st ed., vol. 1999, no. December. Riau, 2021. doi: 10.5281/zenodo.5113507.
- [30] D. T. Informatika, F. Teknik, and U. Hasanuddin, "SISTEM PRESENSI PEGAWAI BERBASIS COMPUTER VISION," 2021.
- [31] E. Hermawan, "Klasifikasi Pengenalan Wajah Menggunakan Masker atau Tidak Dengan Mengimplementasikan Metode CNN (Convolutional Neural Network)," *J. Ind. Kreat. Dan Inform.*, vol. 1, pp. 33–43, 2021.
- [32] F. Marpaung, F. Aulia, and R. C. Nabila, *Computer Vision Dan Pengolahan Citra Digital*. 2022.
- [33] A. S. Riyadi, I. P. Wardhani, D. S. Widayati, and K. Kunci, "Klasifikasi Citra Anjing Dan Kucing Menggunakan Metode Convolutional Neural Network (Cnn)," *Pros. SeNTIK*, vol. 5, no. 1, pp. 307–311, 2021.
- [34] A. B. Handoko, I. K. Timotius, and D. Utomo, "Klasifikasi Citra X-Ray Covid-19 Menggunakan Three-layered CNN Model," *Techné J. Ilm. Elektrotek.*, vol. 21, no. 2, pp. 155–168, 2022, doi: 10.31358/techne.v21i2.316.
- [35] D. Irfansyah, M. Mustikasari, and A. Suroso, "Arsitektur Convolutional Neural Network (CNN) Alexnet Untuk Klasifikasi Hama Pada Citra Daun Tanaman Kopi," *J. Inform. J. Pengemb. IT*, vol. 6, no. 2, pp. 87–92, 2021, doi: 10.30591/jpit.v6i2.2802.
- [36] M. Yani, B. Irawan, and C. Setiningsih, "Application of Transfer Learning Using Convolutional Neural Network Method for Early Detection of Terry's Nail," *J. Phys. Conf. Ser.*, vol. 1201, no. 1, 2019, doi: 10.1088/1742-6596/1201/1/012052.
- [37] I. Akil, "KOMPARASI FUNGSI AKTIVASI NEURAL NETWORK PADA DATA TIME SERIES," vol. 18, no. 1, 2023.
- [38] N. D. Miranda, L. Novamizanti, S. Rizal, F. T. Elektro, and U. Telkom, "Convolutional Neural Network Pada Klasifikasi Sidik Jari Menggunakan

- Resnet-50 Classification of Fingerprint Pattern Using Convolutional Neural Network in Clahe Image,” *J. Tek. Inform.*, vol. 1, no. 2, pp. 61–68, 2020.
- [39] N. Agustina Purwitasari, M. Soleh, J. Raya Puspipetek, and K. Tangerang Selatan, “Implementasi Algoritma Artificial Neural Network Dalam Pembuatan Chatbot Menggunakan Pendekatan Natural Language Processing (Implementation Of Artificial Neural Network Algorithm In Chatbot Development Using Natural Language Processing Approach),” *J. IPTEK*, vol. 6, pp. 14–21, 2022.
- [40] J. D. Soler *et al.*, “Histogram of oriented gradients: A technique for the study of molecular cloud formation,” *Astron. Astrophys.*, vol. 622, pp. 1–31, 2019, doi: 10.1051/0004-6361/201834300.
- [41] “Histogram of Oriented Gradient,” *Scikit Image*. [Online]. Available: https://scikit-image.org/docs/0.20.x/auto_examples/features_detection/plot_hog.html
- [42] R. Girshick, J. Donahue, T. Darrell, and J. Malik, “Rich feature hierarchies for accurate *object* detection and semantic segmentation,” *Proc. IEEE Comput. Soc. Conf. Comput. Vis. Pattern Recognit.*, pp. 580–587, 2014, doi: 10.1109/CVPR.2014.81.
- [43] M. F. Rahman and B. Bambang, “Deteksi Sampah pada Real-time Video Menggunakan Metode Faster R-CNN,” *Appl. Technol. Comput. Sci. J.*, vol. 3, no. 2, pp. 117–125, 2021, doi: 10.33086/atcsj.v3i2.1846.
- [44] S. Ren, K. He, R. Girshick, and J. Sun, “Faster R-CNN : Towards Real-Time *Object* Detection with Region Proposal Networks,” *2016*, pp. 1–14.
- [45] V. S. Subramanyam, “IOU (Intersection over Union),” 2021. <https://medium.com/analytics-vidhya/iou-intersection-over-union-705a39e7acef> (accessed Nov. 11, 2023).
- [46] I. Awaludin, M. Fadhil, and M. A. Z. Zulfikor, “Analisis Kinerja ResNet-50 dalam Klasifikasi Penyakit pada Daun Kopi Robusta,” vol. 9, no. 2, pp. 116–122, 2022.
- [47] F. Nashrullah, S. A. Wibowo, and D. G. Budiman, “Investigasi Parameter Epoch Pada Arsitektur ResNet-50 Untuk Klasifikasi Pornografi,” *J. Comput.*

- Electron. Telecommun.*, vol. 1, no. 1, 2020.
- [48] A. Rastogi, “ResNet50,” 2022. <https://blog.devgenius.io/resnet50-6b42934db431>
- [49] S. Liu *et al.*, “Using a Neural Network to Approximate the Negative Log Likelihood Function,” *EPJ Web Conf.*, vol. 295, p. 09041, 2024, doi: 10.1051/epjconf/202429509041.
- [50] M. D. Darajat, Y. A. Sari, and R. C. Wihandika, “Convolutional Neural Network untuk Klasifikasi Citra Makanan Khas Indonesia,” vol. 5, no. 11, pp. 4764–4769, 2021.
- [51] A. Mulyanto, E. Susanti, F. Rossi, W. Wajiran, and R. I. Borman, “Penerapan Convolutional Neural Network (CNN) pada Pengenalan Aksara Lampung Berbasis Optical Character Recognition (OCR),” *J. Edukasi dan Penelit. Inform.*, vol. 7, no. 1, p. 52, 2021, doi: 10.26418/jp.v7i1.44133.
- [52] E. Stevens, L. Antiga, and T. Viehmann, *Deep Learning with Pytorch*. New York: Manning Publications Co., 2020.
- [53] A. Mutasil, M. Irsan, and D. Sujana, “Pengenalan Wajah Menggunakan OpenCV Untuk Validasi Peserta Ujian Penerimaan Mahasiswa Baru,” vol. 5, no. September, pp. 21–28, 2021.
- [54] F. S. Pane and F. N. Abdullah, *Dasar-Dasar OpenCV*, 1st ed. Bandung, 2020.
- [55] D. Kurniawan, *Pengenalan Machine Learning dengan Python*, 3rd ed. Jakarta: Elex Media Komputindo, 2022.
- [56] F. Sains and U. Muhammadiyah, “Sistem Prediksi Penyakit Jantung Berbasis Web Menggunakan Metode SVM dan Framework Streamlit,” vol. 4, no. 2, pp. 442–452, 2023.
- [57] N. Alfiah, “Rupiah Banknotes,” *Kaggle*, 2022. <https://www.kaggle.com/datasets/nurulalfiyah/rupiah-banknotes> (accessed Nov. 21, 2023).