

DAFTAR PUSTAKA

- Abd Aziz, N., Azman Hanif Sulaiman, M., Zabidi, A., Mohd Yassin, I., Syahirul Amin Megat Ali, M., & Ismael Rizman, Z. (2022). Lightweight Generative Adversarial Network Fundus Image Synthesis. *INTERNATIONAL JOURNAL ON INFORMATICS VISUALIZATION*, 6(1), 270–277. www.joiv.org/index.php/joiv
- Ahmad, B., Jun, S., Palade, V., You, Q., Mao, L., & Zhongjie, M. (2021). Improving skin cancer classification using heavy-tailed student t-distribution in generative adversarial networks (Ted-gan). *Diagnostics*, 11(11), 1–16. <https://doi.org/10.3390/diagnostics11112147>
- Alviantara, I. M. B. (2023). *Klasifikasi Severity level Penyakit Diabetic Retinopathy Menggunakan Residual Network 50* [Bachelor Thesis, Universitas Pendidikan Ganesha]. <https://repo.undiksha.ac.id/17633/>
- Alyoubi, W. L., Abulkhair, M. F., & Shalash, W. M. (2021). Diabetic retinopathy fundus image classification and lesions localization system using deep learning. *Sensors*, 21(11), 1–22. <https://doi.org/10.3390/s21113704>
- Ayoub, S., Gulzar, Y., Rustamov, J., Jabbari, A., Reegu, F. A., & Turaev, S. (2023). Adversarial Approaches to Tackle Imbalanced Data in Machine Learning. *Sustainability (Switzerland)*, 15(9), 1–7. <https://doi.org/10.3390/su15097097>
- Bhatwadekar, A. D., Shughoury, A., Belamkar, A., & Ciulla, T. A. (2021). Genetics of diabetic retinopathy, a leading cause of irreversible blindness in the industrialized world. *Genes*, 12(8), 1–17. <https://doi.org/10.3390/genes12081200>
- Bhoopal, S., Rao, M., & Krishnappa, C. H. (2024). Enhanced diabetic retinopathy detection and classification using fundus images with ResNet50 and CLAHE-GAN. *Indonesian Journal of Electrical Engineering and Computer Science*, 35(1), 366–377. <https://doi.org/10.11591/ijeecs.v35.i1.pp366-377>
- Budi, R. S., Patmasari, R., & Saidah, S. (2021). Klasifikasi Cuaca Menggunakan Metode Convolutional Neural Network (CNN) Weather Classification Using Convolutional Neural Network (CNN) Method. *e-Proceeding of Engineering*, 5047–5052.
- Dogo, E. M., Afolabi, O. J., Nwulu, N. I., Twala, B., & Aigbavboa, C. O. (2018). A Comparative Analysis of Gradient Descent-Based Optimization Algorithms on Convolutional Neural Networks. *Proceedings of the International Conference on Computational Techniques, Electronics and Mechanical Systems, CTEMS 2018*, 92–99. <https://doi.org/10.1109/CTEMS.2018.8769211>
- Fedoruk, O., Klimaszewski, K., Ogonowski, A., & Kruk, M. (2023). Additional Look into GAN-based Augmentation for Deep Learning COVID-19 Image

- Classification. *Machine Graphics and Vision*, 32(3–4), 108–124. <https://doi.org/10.22630/MGV.2023.32.3.6>
- Fong, D. S., Aiello, L. P., Ferris, F. L., & Klein, R. (2004). Diabetic Retinopathy. *Diabetes Care*, 27(10), 2540–2553. <https://doi.org/10.2337/diacare.27.10.2540>
- Goel, S., Gupta, S., Panwar, A., Kumar, S., Verma, M., Bourouis, S., & Ullah, M. A. (2021). Deep Learning Approach for Stages of Severity Classification in Diabetic Retinopathy Using Color Fundus Retinal Images. *Mathematical Problems in Engineering*, 1(1), 1–8. <https://doi.org/10.1155/2021/7627566>
- Goodfellow, I., Bengio, Y., & Courville, A. (2016). *Deep Learning*. MIT Press.
- Goodfellow, I. J., Pouget-Abadie, J., Mirza, M., Xu, B., Warde-Farley, D., Ozair, S., Courville, A., & Bengio, Y. (2014). Generative Adversarial Networks. Dalam *arXiv* (hlm. 1–9). arXiv. <http://arxiv.org/abs/1406.2661>
- Hang, Y. (2021). Thyroid Nodule Classification in Ultrasound Images by Fusion of Conventional Features and Res-GAN Deep Features. *Journal of Healthcare Engineering*, 2021(1), 1–7. <https://doi.org/10.1155/2021/9917538>
- Hansen, M. (2023). Pathogenesis: Understanding the Mechanisms behind Disease Development. *International Research Journal of Basic and Clinical Studies*, 8(4), 1–3. <https://doi.org/10.14303/irjbc.2023.54>
- Haque, A. (2020). EC-GAN: Low-Sample Classification using Semi-Supervised Algorithms and GANs. Dalam *arXiv* (hlm. 1–7). arXiv. <http://arxiv.org/abs/2012.15864>
- Haque, S., & Haque, A. (2021). 3N-GAN: Semi-Supervised Classification of X-Ray Images with a 3-Player Adversarial Framework. Dalam *arXiv* (hlm. 1–5). arXiv. <http://arxiv.org/abs/2109.13862>
- He, K., Zhang, X., Ren, S., & Sun, J. (2015). Deep Residual Learning for Image Recognition. Dalam *arXiv* (hlm. 1–12). arXiv. <http://arxiv.org/abs/1512.03385>
- Hinton, G. E., Srivastava, N., Krizhevsky, A., Sutskever, I., & Salakhutdinov, R. R. (2012). Improving neural networks by preventing co-adaptation of feature detectors. *arXiv*.
- Ilahiyah, S., & Nilogiri, A. (2018). Implementasi Deep Learning Pada Identifikasi Jenis Tumbuhan Berdasarkan Citra Daun Menggunakan Convolutional Neural Network. *JUSTINDO (Jurnal Sistem & Teknologi Informasi Indonesia)*, 3(2), 49–56.
- Kingma, D. P., & Ba, J. (2014). Adam: A Method for Stochastic Optimization. *arXiv*, 1–15. <http://arxiv.org/abs/1412.6980>
- Li, F., Chen, H., Liu, Z., Zhang, X., Jiang, M., Wu, Z., & Zhou, K. (2019). Deep learning-based automated detection of retinal diseases using optical coherence

- tomography images. *Biomedical Optics Express*, 10(12), 6204–6227. <https://doi.org/10.1364/boe.10.006204>
- Liu, Y., Gao, J., & Zhu, H. (2024). Diabetic retinopathy image classification method based on GreenBen data augmentation. *ArXiv*. <https://arxiv.org/abs/2410.09444v1>
- Lu, C. Y., Arcega Rustia, D. J., & Lin, T. Te. (2019). Generative Adversarial Network Based Image Augmentation for Insect Pest Classification Enhancement. *IFAC-PapersOnLine*, 52(30), 1–5. <https://doi.org/10.1016/j.ifacol.2019.12.406>
- Malta, E. M., Rodamilans, C. B., Avila, S., & Borin, E. (2019). A cost-benefit analysis of GPU-based EC2 instances for a deep learning algorithm. *PROCEEDINGS OF THE 10TH REGIONAL SCHOOL OF HIGH-PERFORMANCE COMPUTING OF SÃO PAULO*. <https://github.com/tensorflow/models/tree/master/tutorials/image/cifar10>
- Mao, A., Mohri, M., & Zhong, Y. (2023). Cross-Entropy Loss Functions: Theoretical Analysis and Applications. *arXiv*, 2, 1–26. <http://arxiv.org/abs/2304.07288>
- Menon, S., Mangalagiri, J., Galita, J., Morris, M., Saboury, B., Yesha, Y., Yesha, Y., Nguyen, P., Gangopadhyay, A., & Chapman, D. (2023). CCS-GAN: COVID-19 CT Scan Generation and Classification with Very Few Positive Training Images. *Journal of Digital Imaging*, 36(4), 1376–1389. <https://doi.org/10.1007/s10278-023-00811-2>
- Minarno, A. E., Hazmi, M., Mandiri, C., Azhar, Y., Bimantoro, F., Nugroho, H. A., & Ibrahim, Z. (2022). Classification of Diabetic Retinopathy Disease Using Convolutional Neural Network. *JOIV : Int. J. Inform. Visualization*, 6(1), 12–18. www.joiv.org/index.php/joiv
- Perlindungan, I., & Risnawati. (2020). PENGENALAN TANAMAN CABAI DENGAN TEKNIK KLASIFIKASI MENGGUNAKAN METODE CNN. *Seminar Nasional Mahasiswa Ilmu Komputer dan Aplikasinya (SENAMIKA)*, 15–22.
- Peryanto, A., Yudhana, A., & Umar, R. (2020). Klasifikasi Citra Menggunakan Convolutional Neural Network dan K Fold Cross Validation. *Journal of Applied Informatics and Computing (JAIC)*, 4(1), 45–51. <http://jurnal.polibatam.ac.id/index.php/JAIC>
- Pezzullo, L., Streatfeild, J., Simkiss, P., & Shickle, D. (2018). The economic impact of sight loss and blindness in the UK adult population. *BMC Health Services Research*, 18(1), 1–13. <https://doi.org/10.1186/s12913-018-2836-0>
- Porwal, P., Pachade, S., Kamble, R., Kokare, M., Deshmukh, G., Sahasrabuddhe, V., & Meriaudeau, F. (2018). Indian Diabetic Retinopathy Image Dataset

- (IDRiD): A Database for Diabetic Retinopathy Screening Research. *Data*, 25(3), 1–8. <https://doi.org/10.21227/H25W98>
- Porwal, P., Pachade, S., Kokare, M., Deshmukh, G., Son, J., Bae, W., Liu, L., Wang, J., Liu, X., Gao, L., Wu, T. B., Xiao, J., Wang, F., Yin, B., Wang, Y., Danala, G., He, L., Choi, Y. H., Lee, Y. C., ... Mériaudeau, F. (2019). IDRiD: Diabetic Retinopathy – Segmentation and Grading Challenge. *Medical Image Analysis*, 59(1), 1–83. <https://doi.org/10.1016/j.media.2019.101561>
- Porwal, P., Pachade, S., Kokare, M., Deshmukh, G., Son, J., Bae, W., Liu, L., Wang, J., Liu, X., Gao, L., Wu, T. B., Xiao, J., Wang, F., Yin, B., Wang, Y., Danala, G., He, L., Choi, Y. H., Lee, Y. C., ... Mériaudeau, F. (2020). IDRiD: Diabetic Retinopathy – Segmentation and Grading Challenge. *Medical Image Analysis*, 59. <https://doi.org/10.1016/j.media.2019.101561>
- Pratiwi, H. A., Cahyanti, M., & Lamsani, M. (2021). Implementasi Deep Learning Flower Scanner Menggunakan Metode Convolutional Neural Network. *Sebatik*, 25(1), 124–130. <https://doi.org/10.46984/sebatik.v25i1.1297>
- Purnawibawa, I. W., Purnama, I. N., & Wijaya, I. Y. Y. A. (2022). Komparasi Algoritme K-Nearest Neighbors Dan Support Vector Machines Dalam Prediksi Layanan Produk ICONNET. *Progresif: Jurnal Ilmiah Komputer*, 18(2), 271–282.
- Puspita, Y. H., & Sabri, A. (2024). Transfer Learning Model Pralatih MobileNetV2 dan DenseNet121 untuk Klasikasi Tanaman Rempah. *Jurnal Ilmiah Komputasi*, 23(1), 67–74. <https://doi.org/10.32409/jikstik.23.1.3502>
- Putra, J. W. G. (2020). *Pengenalan Pembelajaran Mesin dan Deep Learning* (Edisi 1.4). self-published work. <https://www.researchgate.net/publication/323700644>
- Rahman, S., Pal, S., Mittal, S., Chawla, T., & Karmakar, C. (2024). SYN-GAN: A robust intrusion detection system using GAN-based synthetic data for IoT security. *Internet of Things (Netherlands)*, 26(1), 1–13. <https://doi.org/10.1016/j.iot.2024.101212>
- Rochmawati, N., Hidayati, H. B., Yamasari, Y., Peni, H., Tjahyaningtijas, A., Yustanti, W., & Prihanto, A. (2021). Analisa Learning rate dan Batch size Pada Klasifikasi Covid Menggunakan Deep learning dengan Optimizer Adam. *JIEET (Journal Information Engineering and Educational Technology)*, 5(2), 44–48.
- Sa'idah, S., Putu, I., Nugraha Suparta, Y., & Suhartono, E. (2022). Modifikasi Convolutional Neural Network Arsitektur GoogLeNet dengan Dull Razor Filtering untuk Klasifikasi Kanker Kulit. *Jurnal Nasional Teknik Elektro dan Teknologi Informasi*, 11(2), 148–153. <https://doi.org/https://doi.org/10.22146/jnteti.v11i2.2739>

- Sarwinda, D., Paradisa, R. H., Bustamam, A., & Anggia, P. (2021). Deep Learning in Image Classification using Residual Network (ResNet) Variants for Detection of Colorectal Cancer. *Procedia Computer Science*, 179, 423–431. <https://doi.org/10.1016/j.procs.2021.01.025>
- Shulman, D. (2023). Optimization Methods in Deep Learning: A Comprehensive Overview. *arXiv*, 1–5. <http://arxiv.org/abs/2302.09566>
- Sulistiani, H., Alita, D., & Dellia, P. (2020). PEMANFAATAN ANALISIS BIAYA DAN MANFAAT DALAM PERHITUNGAN KELAYAKAN INVESTASI TEKNOLOGI INFORMASI. *Jurnal Ilmiah Edutic*, 6(2), 95–105. <https://doi.org/https://doi.org/10.21107/edutic.v6i2>
- Syurfi, I. (2021). *Penerapan Deep Learning dengan Convolutional Neural Network untuk Klasifikasi Citra Diabetic dengan Arsitektur EfficientNet-B7* [Skripsi]. Universitas Islam Sultan Kasim.
- Tan, T. E., & Wong, T. Y. (2023a). Diabetic retinopathy: Looking forward to 2030. *Frontiers in Endocrinology*, 13, 1–8. <https://doi.org/10.3389/fendo.2022.1077669>
- Tan, T. E., & Wong, T. Y. (2023b). Diabetic retinopathy: Looking forward to 2030. *Frontiers in Endocrinology*, 13, 1–8. <https://doi.org/10.3389/fendo.2022.1077669>
- Taye, M. M. (2023). Understanding of Machine Learning with Deep Learning: Architectures, Workflow, Applications and Future Directions. *Computers*, 12(5), 1–26. <https://doi.org/10.3390/computers12050091>
- Tsai, D. M., Fan, M. S. K., Huang, Y. Q., & Chiu, W. Y. (2019). Saw-Mark Defect Detection in Heterogeneous Solar Wafer Images using GAN-based Training Samples Generation and CNN Classification. *VISIGRAPP 2019 - Proceedings of the 14th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications*, 5, 234–240. <https://doi.org/10.5220/0007306602340240>
- Valarmathi, G., Suganthi, S. U., Subashini, V., Janaki, R., Sivasankari, R., & Dhanasekar, S. (2021). CNN algorithm for plant classification in deep learning. *Materials Today: Proceedings*, 46, 3684–3689. <https://doi.org/10.1016/j.matpr.2021.01.847>
- Vashist, P., Singh, S., Gupta, N., & Saxena, R. (2011). Role of early screening for diabetic retinopathy in patients with diabetes mellitus: An overview. *Indian Journal of Community Medicine*, 36(4), 247–252. <https://doi.org/10.4103/0970-0218.91324>
- Wang, W., & Lo, A. C. Y. (2018a). Diabetic retinopathy: Pathophysiology and treatments. *International Journal of Molecular Sciences*, 19(6), 1–14. <https://doi.org/10.3390/ijms19061816>

- Wang, W., & Lo, A. C. Y. (2018b). Diabetic retinopathy: Pathophysiology and treatments. *International Journal of Molecular Sciences*, 19(6), 1–14. <https://doi.org/10.3390/ijms19061816>
- Wardani, K. R. R., Suryalim, H., Engel, V. J. L., & Christian, H. (2023). Analisis Pemilihan Optimizer dalam Arsitektur Convolution Neural Network VGG16 dan Inception untuk Sistem Pengenalan Wajah. *JEPIN (Jurnal Edukasi dan Penelitian Informatika)*, 9(2), 186–194.
- Welch Allyn, I., & Ynjiun Paul Wang. (2019). *FUNDUS IMAGING SYSTEM*.
- Wirawan, I. M. A., Wardoyo, R., Lelono, D., & Kusrohmaniah, S. (2023). Continuous Capsule Network Method for Improving Electroencephalogram-Based Emotion Recognition. *Emerging Science Journal*, 7(1), 116–134. <https://doi.org/10.28991/ESJ-2023-07-01-09>
- Wu, L. (2013). Classification of diabetic retinopathy and diabetic macular edema. *World Journal of Diabetes*, 4(6), 290–294. <https://doi.org/10.4239/wjd.v4.i6.290>
- Yang, Z., Tan, T. E., Shao, Y., Wong, T. Y., & Li, X. (2022). Classification of diabetic retinopathy: Past, present and future. *Frontiers in Endocrinology*, 13, 1–18. <https://doi.org/10.3389/fendo.2022.1079217>
- Yani, M., Irawan, B., & Setiningsih, C. (2019). Application of Transfer Learning Using Convolutional Neural Network Method for Early Detection of Terry's Nail. *Journal of Physics: Conference Series*, 1201(1), 1–9. <https://doi.org/10.1088/1742-6596/1201/1/012052>
- Yusuf, A., Cahya Wihandika, R., & Dewi, C. (2019). Klasifikasi Emosi Berdasarkan Ciri Wajah Menggunakan Convolutional Neural Network. *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, 3(11), 1–10604. <http://j-ptiik.ub.ac.id>
- Zhou, Y., Wang, B., He, X., Cui, S., & Shao, L. (2022). DR-GAN: Conditional Generative Adversarial Network for Fine-Grained Lesion Synthesis on Diabetic Retinopathy Images. *IEEE Journal of Biomedical and Health Informatics*, 24(1), 56–66. <https://doi.org/10.1109/JBHI.2020.3045475>