

DAFTAR PUSTAKA

- Abiodun, O. I., Jantan, A., Omolara, A. E., Dada, K. V., Umar, A. M., Linus, O. U., Arshad, H., Kazaure, A. A., Gana, U., & Kiru, M. U. (2019). Comprehensive Review of Artificial Neural Network Applications to Pattern Recognition. *IEEE Access*, 7, 158820–158846. <https://doi.org/10.1109/ACCESS.2019.2945545>
- Aime, M. C., & Phillips-Mora, W. (2005). The causal agents of witches' broom and frosty pod rot of cacao (chocolate, *Theobroma cacao*) form a new lineage of Marasmiaceae. *Mycologia*, 97(5), 1012–1022. <https://doi.org/10.1080/15572536.2006.11832751>
- Amazon. (2023). *What is Flutter?* <https://aws.amazon.com/what-is/flutter/>
- André, É., Choppy, C., & Reggio, G. (2013). Activity Diagrams Patterns for Modeling. *Software Engineering Research, Management and Applications*, 496, 197–213. https://doi.org/10.1007/978-3-319-00948-3_13
- Arbeit, A. A., Ramadhanti, D., Alief, R., Akbar, R., Ramadhan, S., & Saifudin, A. (2023). Black Box Testing On Best Sales Selection System Application Using Equivalence Partitions Techniques. *Bisnis Dan Pendidikan*, 1(1), 101–106. <https://jurnalmahasiswa.com/index.php/teknobis>
- Armaya'u, Z. U., Gumel, M. M., & Tuge, H. S. (2022). Comparing Flowchart and Swim Lane Activity Diagram for Aiding Transitioning to Object-Oriented Implementation. *American Journal of Education and Technology*, 1(2), 88–106. <https://doi.org/10.54536/ajet.v1i2.612>
- Armengot, L., Ferrari, L., Milz, J., Velásquez, F., Hohmann, P., & Schneider, M. (2020). Cacao agroforestry systems do not increase pest and disease incidence compared with monocultures under good cultural management practices. *Crop Protection*, 130, 105047. <https://doi.org/10.1016/j.cropro.2019.105047>
- Ayikpa, K. J., Mamadou, D., Gouton, P., & Adou, K. J. (2023). Classification of Cocoa Pod Maturity Using Similarity Tools on an Image Database: Comparison of Feature Extractors and Color Spaces. *Data*, 8(6). <https://doi.org/10.3390/data8060099>
- Bailey, B. A., & Meinhardt, L. W. (2016). Cacao diseases: A history of old enemies and new encounters. *Cacao Diseases: A History of Old Enemies and New Encounters*, 1–633. <https://doi.org/10.1007/978-3-319-24789-2>
- Bansal, P., Krueger, R., Bierlaire, M., Daziano, R. A., & Rashidi, T. H. (2020). Bayesian estimation of mixed multinomial logit models: Advances and simulation-based evaluations. *Transportation Research Part B: Methodological*, 131(December), 124–142. <https://doi.org/10.1016/j.trb.2019.12.001>

- Basri, Harli, Indrabayu, Areni, I. S., & Tamin, R. (2019). Image Processing System for Early Detection of Cocoa Fruit Pest Attack. *Journal of Physics: Conference Series*, 1244(1). <https://doi.org/10.1088/1742-6596/1244/1/012003>
- Battula, B. P., & Balaganesh, D. (2020). Medical image data classification using deep learning based hybrid model with CNN and encoder. *Revue d'Intelligence Artificielle*, 34(5), 645–652. <https://doi.org/10.18280/ria.340516>
- Bourhis, P., Reutter, J. L., & Vrgoč, D. (2020). JSON: Data model and query languages. *Information Systems*, 89. <https://doi.org/10.1016/j.is.2019.101478>
- Chandraumakantham, O., Gowtham, N., Zakariah, M., & Almazyad, A. (2024). Multimodal Emotion Recognition Using Feature Fusion: An LLM-Based Approach. *IEEE Access*, 12, 108052–108071. <https://doi.org/10.1109/ACCESS.2024.3425953>
- Chen, Y., Lin, Y., Xu, X., Ding, J., Li, C., Zeng, Y., Liu, W., Xie, W., & Huang, J. (2022). Classification of lungs infected COVID-19 images based on inception-ResNet. *Computer Methods and Programs in Biomedicine*, 225, 107053. <https://doi.org/10.1016/j.cmpb.2022.107053>
- Choi, D., Shallue, C. J., Nado, Z., Lee, J., Maddison, C. J., & Dahl, G. E. (2019). On Empirical Comparisons of Optimizers for Deep Learning. *Computing Research Repository (CoRR)*, abs/1910.0(1), 1–27. <https://doi.org/10.48550/arXiv.1910.05446>
- Darmawan, F. (2023). APLIKASI DIAGNOSIS PENYAKIT PADA DAUN TEH MENGGUNAKAN ALGORITMA CONVOLUTIONAL NEURAL NETWORK (CNN) ARSITEKTUR INCEPTION-RESNET V2. In *Engineering Research*. Jenderal Soedirman University.
- Dawan, D. A. (2021). Analisis Tingkat Pendapatan Petani Coklat (Cacao) di Kampung Wemby Distrik Arso Timur Kabupaten Keerom. *Jurnal Koperasi dan Manajemen*, 2(1), 60–70. <https://doi.org/10.52838/komastie.v2i01>
- Desai, C. G. (2024). Impact of Weight Initialization Techniques on Neural Network Efficiency and Performance: A Case Study with MNIST Dataset. *International Journal Of Engineering And Computer Science*, 13(April), 26115–26120. <https://doi.org/10.18535/ijecs/v13i04.4809>
- Dobslaw, F., De Oliveira Neto, F. G., & Feldt, R. (2020). Boundary Value Exploration for Software Analysis. *Proceedings - 2020 IEEE 13th International Conference on Software Testing, Verification and Validation Workshops, ICSTW 2020*, 346–353. <https://doi.org/10.1109/ICSTW50294.2020.00062>
- Ganaie, M. A., Hu, M., Malik, A. K., Tanveer, M., & Suganthan, P. N. (2022).

- Ensemble deep learning: A review. *Engineering Applications of Artificial Intelligence*, 115(August), 1–45. <https://doi.org/10.1016/j.engappai.2022.105151>
- Glorot, X., & Bengio, Y. (2010). Understanding the difficulty of training deep feedforward neural networks. *Journal of Machine Learning Research*, 9, 249–256. <https://proceedings.mlr.press/v9/glorot10a.html>.
- Gonzalez, R. C., & Woods, R. E. (2018). *4TH EDITION Digital image processing* (4 ed.). Pearson.
- Guest, D., & Keane, P. (2007). Vascular-streak dieback: A new encounter disease of cacao in Papua New Guinea and Southeast Asia caused by the obligate basidiomycete *Oncobasidium theobromae*. *Phytopathology*, 97(12), 1654–1657. <https://doi.org/10.1094/PHYTO-97-12-1654>
- Harvyanti, A. F. M., Baihaki, R. I., Dafik, Ridlo, Z. R., & Agustin, I. H. (2023). *Application of Convolutional Neural Network for Identifying Cocoa Leaf Disease* (Vol. 2). Atlantis Press International BV. https://doi.org/10.2991/978-94-6463-174-6_21
- He, K., Zhang, X., Ren, S., & Sun, J. (2016). Deep residual learning for image recognition. *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, 2016-Decem*, 770–778. <https://doi.org/10.1109/CVPR.2016.90>
- Hospodarskyy, O., Martsenyuk, V., Kukharska, N., Hospodarskyy, A., & Sverstiuk, S. (2024). CITI'2024: 2nd International Workshop on Computer Information Technologies in Industry. *Understanding the Adam Optimization Algorithm in Machine Learning*, 3742, 235–248. <https://doi.org/10.48550/arXiv.1412.6980>
- Huang, C., Li, Y., Loy, C. C., & Tang, X. (2016). Learning deep representation for imbalanced classification. *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, 2016-Decem*, 5375–5384. <https://doi.org/10.1109/CVPR.2016.580>
- Inc, G. (2022). *Citing TensorFlow*. <https://www.tensorflow.org/about/bib>
- Inc, G. (2023a). *Dart overview*. <https://dart.dev/overview>
- Inc, G. (2023b). *TensorFlow basics*. <https://www.tensorflow.org/guide/basics>
- Indah Marthasari, G., Tri Wahyuningsih, A., Rizky Aviansyah, M., Alfian Ramadhani, M., Rahmatullah, Z., Teknik, F., Muhammadiyah Malang Jalan Raya Tlogomas No, U., Lowokwaru, K., Malang, K., & Timur, J. (2022). Pengujian Website Infotech Menggunakan Teknik Black-Box Decision Table. *Jurnal Informatika Universitas Pamulang*, 7(1), 115–119. <https://doi.org/10.32493/informatika.v7i1.17315>
- Ioffe, S., & Szegedy, C. (2015). Batch normalization: Accelerating deep network

- training by reducing internal covariate shift. *32nd International Conference on Machine Learning, ICML 2015*, 1, 448–456. <https://doi.org/10.48550/arXiv.1502.03167>
- Jiao, T., Guo, C., Feng, X., Chen, Y., & Song, J. (2024). A Comprehensive Survey on Deep Learning Multi-Modal Fusion: Methods, Technologies and Applications. *Computers, Materials and Continua*, 80(1), 1–35. <https://doi.org/10.32604/cmc.2024.053204>
- Karpathy, A., Toderici, G., Shetty, S., Leung, T., Sukthankar, R., & Li, F. F. (2014). Large-scale video classification with convolutional neural networks. *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, 1725–1732. <https://doi.org/10.1109/CVPR.2014.223>
- Kingma, D. P., & Ba, J. L. (2015). Adam: A method for stochastic optimization. *3rd International Conference on Learning Representations, ICLR 2015 - Conference Track Proceedings*, 1–15. <https://doi.org/10.48550/arXiv.1412.6980>
- Krawczyk, B., & Schaefer, G. (2012). Ensemble Fusion Methods for Medical Data Classification. *11th Symposium on Neural Network Applications in Electrical Engineering*, 12–15. <https://doi.org/10.1109/NEUREL.2012.6419993>
- Kumi, S., Kelly, D., Woodstuff, J., Lomotey, R. K., Orji, R., & Deters, R. (2022). Cocoa Companion: Deep Learning-Based Smartphone Application for Cocoa Disease Detection. *Procedia Computer Science*, 203, 87–94. <https://doi.org/10.1016/j.procs.2022.07.013>
- Lawi, A., Panggabean, B. L. E., & Yoshida, T. (2021). Evaluating graphql and rest api services performance in a massive and intensive accessible information system. *Computers*, 10(11). <https://doi.org/10.3390/computers10110138>
- Liang, J., Liu, Y., & Vlassov, V. (2023). The Impact of Background Removal on Performance of Neural Networks for Fashion Image Classification and Segmentation. *Proceedings - 2023 Congress in Computer Science, Computer Engineering, and Applied Computing, CSCE 2023*, 1960–1968. <https://doi.org/10.1109/CSCE60160.2023.00323>
- Lu, J., Tan, L., & Jiang, H. (2021). Review on convolutional neural network (CNN) applied to plant leaf disease classification. *Agriculture (Switzerland)*, 11(8), 1–18. <https://doi.org/10.3390/agriculture11080707>
- Manconi, A., Armano, G., Gnocchi, M., & Milanesi, L. (2022). A Soft-Voting Ensemble Classifier for Detecting Patients Affected by COVID-19. *Applied Sciences (Switzerland)*, 12(15). <https://doi.org/10.3390/app12157554>
- Mansour, R. F., & Aljehane, N. O. (2021). An optimal segmentation with deep learning based inception network model for intracranial hemorrhage

- diagnosis. *Neural Computing and Applications*, 33(20), 13831–13843. <https://doi.org/10.1007/s00521-021-06020-8>
- Marelli, J. P., Guest, D. I., Bailey, B. A., Evans, H. C., Brown, J. K., Junaid, M., Barreto, R. W., Lisboa, D. O., & Puig, A. S. (2019). Chocolate under threat from old and new cacao diseases. *Phytopathology*, 109(8), 1331–1343. <https://doi.org/10.1094/PHYTO-12-18-0477-RVW>
- Maulidah, N., Indrabayu, & Areni, I. S. (2020). *Water Sprouts Detection of Cacao Tree Using Mask Region-based Convolutional Neural Network*. 4(27), 1–16. <https://doi.org/10.1109/ICT49546.2020.90239443>
- Meinhardt, L. W., Rincones, J., Bailey, B. A., Aime, M. C., Griffith, G. W., Zhang, D., & Pereira, G. A. G. (2008). Moniliophthora perniciosa, the causal agent of witches' broom disease of cacao: What's new from this old foe? *Molecular Plant Pathology*, 9(5), 577–588. <https://doi.org/10.1111/j.1364-3703.2008.00496.x>
- Montesinos López, O. A., Montesinos López, A., & Crossa, J. (2022). Multivariate Statistical Machine Learning Methods for Genomic Prediction. In *Multivariate Statistical Machine Learning Methods for Genomic Prediction*. <https://doi.org/10.1007/978-3-030-89010-0>
- Morvant, E., Habrard, A., & Ayache, S. (2014). Majority vote of diverse classifiers for late fusion. *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 8621 LNCS, 153–162. https://doi.org/10.1007/978-3-662-44415-3_16
- Muhammad, I. R. D., & Paputungan, I. V. (2024). Development of Backend Server Based on REST API Architecture in E-Wallet Transfer System. *Jurnal Sains, Nalar, dan Aplikasi Teknologi Informasi*, 3(2), 79–87. <https://doi.org/10.20885/snati.v3.i2.35>
- Nesi Bria, L. (2022). Penentuan Posisi Ekspor Kakao Indonesia Menurut Sembilan Negara Tujuan Di Pasar Internasional. *KAPITA: Jurnal Agribisnis & Pembangunan Pertanian*, 1(2), 58–66. <https://doi.org/10.52562/kapita.v1i2.386>
- Nwadiugwu, M. C. (2020). Neural Networks, Artificial Intelligence and the Computational Brain. *Neurons and Cognition*, abs/2101.0. <https://doi.org/10.48550/arXiv.2101.08635>
- Obaid, H. S., Dheyab, S. A., & Sabry, S. S. (2019). The Impact of Data Pre-Processing Techniques and Dimensionality Reduction on the Accuracy of Machine Learning. *IEEE Access*, 279–283. <https://doi.org/10.1109/IMECONX.2019.8877011>
- Papadopoulos, S., Koukiou, G., & Anastassopoulos, V. (2024). Decision Fusion at Pixel Level of Multi-Band Data for Land Cover Classification—A Review.

Journal of Imaging, 10(1). <https://doi.org/10.3390/jimaging10010015>

- Pereira, L. M., Salazar, A., & Vergara, L. (2023). A Comparative Analysis of Early and Late Fusion for the Multimodal Two-Class Problem. *IEEE Access*, 11, 84283–84300. <https://doi.org/10.1109/ACCESS.2023.3296098>
- Python. (2023). *What is Python? Executive Summary*. <https://www.python.org/doc/essays/blurb/>
- Rosmana, A., Shepard, M., Hebbar, P., & Mustari, A. (2013). CONTROL OF COCOA POD BORER AND PHYTOPHTHORA POD ROT USING DEGRADABLE PLASTIC POD SLEEVES AND A NEMATODE, Steinernema carpocapsae. *Indonesian Journal of Agricultural Science*, 11(2), 41. <https://doi.org/10.21082/ijas.v11n2.2010.p41-47>
- Rother, C., Kolmogorov, V., & Blake, A. (2004). “GrabCut” - Interactive foreground extraction using iterated graph cuts. *ACM Transactions on Graphics*, 23(3), 309–314. <https://doi.org/10.1145/1015706.1015720>
- Ruder, S. (2016). An overview of gradient descent optimization algorithms. *Computing Research Repository (CoRR)*, abs/1609.0, 1–14. <https://doi.org/10.48550/arXiv.1609.04747>
- Sheng, Z., Wang, H., Chen, G., Zhou, B., & Sun, J. (2021). Convolutional residual network to short-term load forecasting. *Applied Intelligence*, 51(4), 2485–2499. <https://doi.org/10.1007/s10489-020-01932-9>
- Smulders, M. J. M., Esselink, D., Amores, F., Ramos, G., Sukha, D. a, Butler, D. R., Vosman, B., & Van Loo, E. N. (2009). Identification of Cocoa (*Theobroma cacao* L.) Varieties with Different Quality Attributes and Parentage Analysis of Their Beans. *INGENIC Newsletter*, 12, 1–13. <https://research.wur.nl/en/publications/identification-of-cocoa-theobroma-cacao-l-varieties-with-differen>
- Sun, Y., Chen, W., & Lv, J. (2022). Uav Path Planning Based on Improved Artificial Potential Field Method. *Proceedings - 2022 International Conference on Computer Network, Electronic and Automation, ICCNEA 2022*, 95–100. <https://doi.org/10.1109/ICCNEA57056.2022.00031>
- Supriyono. (2020). Software Testing with the approach of Blackbox Testing on the Academic Information System. *International Journal of Information System & Technology*, 3(36), 227–235. <https://doi.org/10.30645/ijistech.v3i2.54>
- Suzanti, I. O., Fitriani, N., Jauhari, A., & Khozaimi, A. (2020). REST API Implementation on Android Based Monitoring Application. *Journal of Physics: Conference Series*, 1569(2), 1–5. <https://doi.org/10.1088/1742-6596/1569/2/022088>
- Swarna, I., Purnama, J., & Anthony, R. (2021). Cross-Platform Analysis and Development of Online Catering Platform (Kunyahku). *Journal of Applied*

Information, Communication and Technology, 7(2), 79–89.
<https://doi.org/10.33555/jaict.v7i2.106>

- Szegedy, C., Ioffe, S., Vanhoucke, V., & Alemi, A. A. (2017). Inception-v4, inception-ResNet and the impact of residual connections on learning. *31st AAAI Conference on Artificial Intelligence, AAAI 2017*, 4278–4284. <https://doi.org/10.1609/aaai.v31i1.11231>
- Szegedy, C., Liu, W., Jia, Y., Sermanet, P., Reed, S., Anguelov, D., Erhan, D., Vanhoucke, V., & Rabinovich, A. (2015). Going deeper with convolutions. *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, June, 1–9. <https://doi.org/10.1109/CVPR.2015.7298594>
- Szegedy, C., Vanhoucke, V., Ioffe, S., Shlens, J., & Wojna, Z. (2016). Rethinking the Inception Architecture for Computer Vision. *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, December, 2818–2826. <https://doi.org/10.1109/CVPR.2016.308>
- Szeliski, R. (2011). Computer Vision: Algorithms and Applications. In 1 (hal. 1–25). https://doi.org/10.1007/978-1-84882-935-0_1
- Tabian, I., Fu, H., & Khodaei, Z. S. (2019). A convolutional neural network for impact detection and characterization of complex composite structures. *Sensors (Switzerland)*, 19(22), 1–25. <https://doi.org/10.3390/s19224933>
- Tan, D. S., Leong, R. N., Laguna, A. F., Ngo, C. A., Lao, A., Amalin, D. M., & Alvindia, D. G. (2018). AuToDiDAC: Automated Tool for Disease Detection and Assessment for Cacao Black Pod Rot. *Crop Protection*, 103(January 2017), 98–102. <https://doi.org/10.1016/j.cropro.2017.09.017>
- Taspinar, Y. S., Cinar, I., & Koklu, M. (2022). Classification by a stacking model using CNN features for COVID-19 infection diagnosis. *Journal of X-Ray Science and Technology*, 30(1), 73–88. <https://doi.org/10.3233/XST-211031>
- Touseef, M., Anwer, N., Hussain, A., & Nadeem, A. (2015). Testing from UML Design using Activity Diagram: A Comparison of Techniques. *International Journal of Computer Applications*, 131(5), 41–47. <https://doi.org/10.5120/ijca2015907354>
- Trihardianingsih, L., Sunyoto, A., & Hidayat, T. (2023). Classification of Tea Leaf Diseases Based on ResNet-50 and Inception V3. *Sinkron*, 8(3), 1564–1573. <https://doi.org/10.33395/sinkron.v8i3.12604>
- Wang, Y., Xiao, Z., & Cao, G. (2022). A convolutional neural network method based on Adam optimizer with power-exponential learning rate for bearing fault diagnosis. *Journal of Vibroengineering*, 24(4), 666–678. <https://doi.org/10.21595/jve.2022.22271>
- Wightman, R., Touvron, H., & Jégou, H. (2021). ResNet strikes back: An improved

- training procedure in timm. *Computing Research Repository (CoRR)*, *abs/2110.0*, 1–22. <http://arxiv.org/abs/2110.00476>
- Zeng, G. (2020). On the confusion matrix in credit scoring and its analytical properties. *Communications in Statistics - Theory and Methods*, *49*(9), 2080–2093. <https://doi.org/10.1080/03610926.2019.1568485>

