

DAFTAR PUSTAKA

- Al-Dweik, A., Wael, M., & Takroui Hebron -Palestine, A. L. (2023). *Object Finder Robot*.
- Alif, M. A. R. (2024). *YOLOv11 for Vehicle Detection: Advancements, Performance, and Applications in Intelligent Transportation Systems*. <http://arxiv.org/abs/2410.22898>
- Benjumea, A., Teeti, I., Cuzzolin, F., & Bradley, A. (2021). *YOLO-Z: Improving small object detection in YOLOv5 for autonomous vehicles*. <http://arxiv.org/abs/2112.11798>
- Bisong, E. (2019). *Building Machine Learning and Deep Learning Models on Google Cloud Platform*. Apress. <https://doi.org/10.1007/978-1-4842-4470-8>
- Blalock, D., Ortiz, J. J. G., Frankie, J., & Gutttag, J. (2020). *WHAT IS THE STATE OF NEURAL NETWORK PRUNING*. <https://doi.org/https://doi.org/10.48550/arXiv.2003.03033>
- Bochkovskiy, A., Wang, C.-Y., & Liao, H.-Y. M. (2020). *YOLOv4: Optimal Speed and Accuracy of Object Detection*. <http://arxiv.org/abs/2004.10934>
- Bu, T., Zhang, X., Mertz, C., & Dolan, J. M. (2021). CARLA Simulated Data for Rare Road Object Detection. *2021 IEEE International Intelligent Transportation Systems Conference (ITSC)*, 2794–2801. <https://doi.org/10.1109/ITSC48978.2021.9564932>
- Casas, E., Ramos, L., Bendek, E., & Rivas-Echeverría, F. (2023). Assessing the Effectiveness of YOLO Architectures for Smoke and Wildfire Detection. *IEEE Access*, 11, 96554–96583. <https://doi.org/10.1109/ACCESS.2023.3312217>
- Chattopadhyay, A., & Maitra, M. (2022). MRI-based brain tumour image detection using CNN based deep learning method. *Neuroscience Informatics*, 2(4), 100060. <https://doi.org/10.1016/j.neuri.2022.100060>
- Chen, S., & Lin, W. (2019). Embedded System Real-Time Vehicle Detection based on Improved YOLO Network. *Proceedings of 2019 IEEE 3rd Advanced Information Management, Communicates, Electronic and Automation Control Conference, IMCEC 2019*. <https://doi.org/10.1109/IMCEC46724.2019.8984055>

- Cypto, M. J., Yaswanth, B., Charan, S., Suresh, K., & Vishal, K. (2022). Live Object Detection Using Flutter. *International Journal of Advances in Engineering and Management (IJAEM)*, 4, 1115.
<https://doi.org/10.35629/5252-041111151119>
- Dalal, S., Lilhore, U. K., Sharma, N., Arora, S., Simaiya, S., Ayadi, M., Almujaally, N. A., & Ksibi, A. (2024). Improving smart home surveillance through YOLO model with transfer learning and quantization for enhanced accuracy and efficiency. *PeerJ Computer Science*, 10, e1939.
<https://doi.org/10.7717/peerj-cs.1939>
- Derrenger, P., Munawar, M. R., Mattioli, F., & Jocher, G. (2024). *YOLO11 - Ultralytics YOLO Docs*.
<https://docs.ultralytics.com/models/yolo11/#supported-tasks-and-modes>
- Dettmers, T., Lewis, M., Shleifer, S., & Zettlemoyer, L. (2021). *8-bit Optimizers via Block-wise Quantization*.
- Doan Van, D. (2023). Application of Advanced Deep Convolutional Neural Networks for the Recognition of Road Surface Anomalies. *Engineering, Technology & Applied Science Research*, 13(3), 10765–10768.
<https://doi.org/10.48084/etasr.5890>
- Fallas, A. U., Moore, K. D., Ngo, V., & Patterson, S. (2024). *Flutter Apprentice (Fourth Edition): Learn to Build Cross-Platform Apps* (L. Guzzi, Shrihriday, & C. Rocchi, Ed.). Kodeco Inc.
- Feurer, M., & Hutter, F. (2019). *Hyperparameter Optimization* (hlm. 3–33).
https://doi.org/10.1007/978-3-030-05318-5_1
- Gen, M. (2006). Genetic Algorithms and Their Applications. Dalam *Springer Handbook of Engineering Statistics* (hlm. 749–773). Springer London.
https://doi.org/10.1007/978-1-84628-288-1_42
- Ghasemzadeh, H., Hillman, R. E., & Mehta, D. D. (2023). *Toward Generalizable Machine Learning Models in Speech, Language, and Hearing Sciences: Estimating Sample Size and Reducing Overfitting*.
https://doi.org/10.1044/2023_JSLHR-23-00273
- Gillani, I. S., Munawar, M. R., Talha, M., Azhar, S., Mashkooor, Y., uddin, M. S., & Zafar, U. (2022). *Yolov5, Yolo-x, Yolo-r, Yolov7 Performance Comparison: A Survey*. 17–28. <https://doi.org/10.5121/csit.2022.121602>

- Goodfellow, I., Bengio, Y., & Courviller, A. (2016). *Deep Learning*. The MIT Press.
- Huang, R., Pedoeem, J., & Chen, C. (2018). YOLO-LITE: A Real-Time Object Detection Algorithm Optimized for Non-GPU Computers. *2018 IEEE International Conference on Big Data (Big Data)*, 2503–2510. <https://doi.org/10.1109/BigData.2018.8621865>
- Imanullah, M., & Reswan, Y. (2022). Randomized QR-code scanning for a low-cost secured attendance system. *International Journal of Electrical and Computer Engineering*, 12(4). <https://doi.org/10.11591/ijece.v12i4.pp3762-3769>
- Isa, I. S., Rosli, M. S. A., Yusof, U. K., Maruzuki, M. I. F., & Sulaiman, S. N. (2022). Optimizing the Hyperparameter Tuning of YOLOv5 for Underwater Detection. *IEEE Access*, 10, 52818–52831. <https://doi.org/10.1109/ACCESS.2022.3174583>
- Isaac Abiodun, O., Jantan, A., Esther Omolara, A., Victoria Dada, K., AbdElatif Mohamed, N., & Arshad, H. (2018). State-of-the-art in artificial neural network applications: A survey. *Heliyon*, 4, 938. <https://doi.org/10.1016/j.heliyon.2018>
- Jadaun, S., Singh, R. K., Kumar, R., & Agarwal, Dr. K. K. (2023). Analysis of Cross Platform Application Development Over Multiple Devices using Flutter & Dart. *International Journal of Recent Technology and Engineering (IJRTE)*, 12(1), 33–38. <https://doi.org/10.35940/ijrte.A7580.0512123>
- Javed, M. G., Raza, M., Ghaffar, M. M., Weis, C., Wehn, N., Shahzad, M., & Shafait, F. (2021). QuantYOLO: A High-Throughput and Power-Efficient Object Detection Network for Resource and Power Constrained UAVs. *2021 Digital Image Computing: Techniques and Applications (DICTA)*, 01–08. <https://doi.org/10.1109/DICTA52665.2021.9647121>
- Jocher, G., & Binh, N. A. (2023). *YOLOv8 by Ultralytics*. <https://github.com/ultralytics/ultralytics>
- Jocher, G., Derrenger, P., & Munawar, M. R. (2023, November 12). *YOLOv5 - Ultralytics YOLO Docs*. <https://docs.ultralytics.com/models/yolov5/>

- Joseph, V. R. (2022). Optimal ratio for data splitting. *Statistical Analysis and Data Mining: The ASA Data Science Journal*, 15(4), 531–538.
<https://doi.org/10.1002/sam.11583>
- Kahlout, K. M., & Ekler, P. (2021). Algorithmic Splitting: A Method for Dataset Preparation. *IEEE Access*, 9, 125229–125237.
<https://doi.org/10.1109/ACCESS.2021.3110745>
- Karantoumanis, E., Balafas, V., Louta, M., & Ploskas, N. (2022). Computational comparison of image preprocessing techniques for plant diseases detection. *2022 7th South-East Europe Design Automation, Computer Engineering, Computer Networks and Social Media Conference (SEEDA-CECNSM)*, 1–5.
<https://doi.org/10.1109/SEEDA-CECNSM57760.2022.9932972>
- Katoch, S., Chauhan, S. S., & Kumar, V. (2021). A review on genetic algorithm: past, present, and future. *Multimedia Tools and Applications*, 80(5), 8091–8126. <https://doi.org/10.1007/s11042-020-10139-6>
- Kluska, P., & Zięba, M. (2020). *Post-training Quantization Methods for Deep Learning Models* (hlm. 467–479). https://doi.org/10.1007/978-3-030-41964-6_40
- Krishnamoorthi, R. (2018). *Quantizing deep convolutional networks for efficient inference: A whitepaper*. <http://arxiv.org/abs/1806.08342>
- Lee, J., & Hwang, K. (2022). YOLO with adaptive frame control for real-time object detection applications. *Multimedia Tools and Applications*, 81(25), 36375–36396. <https://doi.org/10.1007/s11042-021-11480-0>
- Liao, L., Li, H., Shang, W., & Ma, L. (2022). An Empirical Study of the Impact of Hyperparameter Tuning and Model Optimization on the Performance Properties of Deep Neural Networks. *ACM Transactions on Software Engineering and Methodology*, 31(3), 1–40. <https://doi.org/10.1145/3506695>
- Liberatori, B., Mami, C. A., Santacatterina, G., Zullich, M., & Pellegrino, F. A. (2022). YOLO-Based Face Mask Detection on Low-End Devices Using Pruning and Quantization. *2022 45th Jubilee International Convention on Information, Communication and Electronic Technology (MIPRO)*, 900–905.
<https://doi.org/10.23919/MIPRO55190.2022.9803406>
- Liunanda, C. N., Rostianingsih, S., & Purbowo, A. N. (2020). *Implementasi Algoritma YOLO pada Aplikasi Pendeteksi Senjata Tajam di Android*.

- Llugsí, R., Yacoubi, S. El, Fontaine, A., & Lupera, P. (2021). Comparison between Adam, AdaMax and Adam W optimizers to implement a Weather Forecast based on Neural Networks for the Andean city of Quito. *2021 IEEE Fifth Ecuador Technical Chapters Meeting (ETCM)*, 1–6. <https://doi.org/10.1109/ETCM53643.2021.9590681>
- Lu, Q., & Yuan, Y. (2020). *Improved YOLO Algorithm for Object Detection in Traffic Video* (hlm. 1647–1655). https://doi.org/10.1007/978-981-13-9409-6_198
- Motta, D., Santos, A. Á. B., Machado, B. A. S., Ribeiro-Filho, O. G. V., Camargo, L. O. A., Valdenegro-Toro, M. A., Kirchner, F., & Badaró, R. (2020). Optimization of convolutional neural network hyperparameters for automatic classification of adult mosquitoes. *PLOS ONE*, 15(7), e0234959. <https://doi.org/10.1371/journal.pone.0234959>
- Mustapha, A., Mohamed, L., & Ali, K. (2020). *An Overview of Gradient Descent Algorithm Optimization in Machine Learning: Application in the Ophthalmology Field* (hlm. 349–359). https://doi.org/10.1007/978-3-030-45183-7_27
- Naik, P. M., & Rudra, B. (2024). Optimizing Object Detection in YOLOv5 using Adaptive Genetic Algorithm: A Study on Population Sizes for Enhanced Accuracy. *2024 3rd International Conference for Innovation in Technology, INOCON 2024*. <https://doi.org/10.1109/INOCON60754.2024.10512119>
- P, N., V, M., K, M. S., Vardhan Reddy A, N., G, D., & Reddy C, C. K. (2022). Ensemble Machine Learning (Grid Search & Random Forest) based Enhanced Medical Expert Recommendation System for Diabetes Mellitus Prediction. *2022 3rd International Conference on Electronics and Sustainable Communication Systems (ICESC)*, 757–765. <https://doi.org/10.1109/ICESC54411.2022.9885312>
- Padilla, R., Netto, S. L., & da Silva, E. A. B. (2020). A Survey on Performance Metrics for Object-Detection Algorithms. *2020 International Conference on Systems, Signals and Image Processing (IWSSIP)*, 237–242. <https://doi.org/10.1109/IWSSIP48289.2020.9145130>
- Panja, E., Hendry, H., & Dewi, C. (2024). YOLOv8 Analysis for Vehicle Classification Under Various Image Conditions. *Scientific Journal of Informatics*, 11(1), 127–138. <https://doi.org/10.15294/sji.v11i1.49038>

- Purwono, Ma'arif, A., Rahmانيar, W., Fathurrahman, H. I. K., Frisky, A. Z. K., & Haq, Q. M. U. (2022). Understanding of Convolutional Neural Network (CNN): A Review. *International Journal of Robotics and Control Systems*, 2(4), 739–748. <https://doi.org/10.31763/ijrcs.v2i4.888>
- Qi, G., Zhang, X., & Fu, X. (2023). MT-YOLO: Combination of Multi-Scale Feature Extraction and Transformer in One-Stage Object Detection. *2023 International Seminar on Computer Science and Engineering Technology (SCSET)*, 314–317. <https://doi.org/10.1109/SCSET58950.2023.00076>
- R. Anita Jasmine, P. Arockia Jansi Rani, & J.Ashley Dhas. (2022). Hyper Parameters Optimization for Effective Brain Tumor Segmentation with YOLO Deep Learning. *Journal of Pharmaceutical Negative Results*. <https://doi.org/10.47750/pnr.2022.13.s06.292>
- Raji, I. D., Bello-Salau, H., Umoh, I. J., Onumanyi, A. J., Adegboye, M. A., & Salawudeen, A. T. (2022). Simple Deterministic Selection-Based Genetic Algorithm for Hyperparameter Tuning of Machine Learning Models. *Applied Sciences*, 12(3), 1186. <https://doi.org/10.3390/app12031186>
- Ramos, L., Casas, E., Bendek, E., Romero, C., & Rivas-Echeverría, F. (2024a). Computer vision for wildfire detection: a critical brief review. *Multimedia Tools and Applications*. <https://doi.org/10.1007/s11042-024-18685-z>
- Ramos, L., Casas, E., Bendek, E., Romero, C., & Rivas-Echeverría, F. (2024b). Hyperparameter optimization of YOLOv8 for smoke and wildfire detection: Implications for agricultural and environmental safety. *Artificial Intelligence in Agriculture*, 12, 109–126. <https://doi.org/10.1016/j.aiia.2024.05.003>
- Redmon, J., Divvala, S., Girshick, R., & Farhadi, A. (2016). *You Only Look Once: Unified, Real-Time Object Detection*. <http://arxiv.org/abs/1506.02640>
- Rubin, R. (2020, September). *My Journey in Converting PyTorch to TensorFlow Lite | Towards Data Science*. <https://towardsdatascience.com/my-journey-in-converting-pytorch-to-tensorflow-lite-d244376beed/>
- Safarik, J., Jalowiczor, J., Gresak, E., & Rozhon, J. (2018). Genetic algorithm for automatic tuning of neural network hyperparameters. Dalam M. C. Dudzik & J. C. Ricklin (Ed.), *Autonomous Systems: Sensors, Vehicles, Security, and the Internet of Everything* (hlm. 28). SPIE. <https://doi.org/10.1117/12.2304955>
- Santoso, F. Y., Sediyo, E., & Purnomo, H. D. (2023). Genetic Algorithm For Convolutional Neural Network Hyperparameter Tuning. *2023 3rd*

- International Conference on Computing and Information Technology (ICCIT)*, 232–236. <https://doi.org/10.1109/ICCIT58132.2023.10273928>
- Sapkota, R., Churuvija, M., Du, X., Meng, Z., Ma, Z., & Karkee, M. (2024). *Comprehensive Performance Evaluation of YOLO11, YOLOv10, YOLOv9 and YOLOv8 on Detecting and Counting Fruitlet in Complex Orchard Environments*. <https://doi.org/http://dx.doi.org/10.48550/arXiv.2407.12040>
- Satila Passa, R., Nurmaini, S., & Rini, D. P. (2023). YOLOv8 Based on Data Augmentation for MRI Brain Tumor Detection. *Scientific Journal of Informatics*, 10(3), 363. <https://doi.org/10.15294/sji.v10i3.45361>
- SEN, S. Y., & OZKURT, N. (2020). Convolutional Neural Network Hyperparameter Tuning with Adam Optimizer for ECG Classification. *2020 Innovations in Intelligent Systems and Applications Conference (ASYU)*, 1–6. <https://doi.org/10.1109/ASYU50717.2020.9259896>
- Sheehan, S., & Song, Y. S. (2016). Deep Learning for Population Genetic Inference. *PLoS Computational Biology*, 12(3). <https://doi.org/10.1371/journal.pcbi.1004845>
- Singh, V., Pencina, M., Einstein, A. J., Liang, J. X., Berman, D. S., & Slomka, P. (2021). Impact of train/test sample regimen on performance estimate stability of machine learning in cardiovascular imaging. *Scientific Reports*, 11(1). <https://doi.org/10.1038/s41598-021-93651-5>
- Soltanikazemi, E., Dhakal, A., Hatuwal, B. K., Toubal, I. E., Aboah, A., & Palaniappan, K. (2023). *Real-Time Helmet Violation Detection in AI City Challenge 2023 with Genetic Algorithm-Enhanced YOLOv5*. <https://doi.org/10.1109/AIPR60534.2023.10440713>
- Suhail, K., & Brindha, D. (2024). Microscopic urinary particle detection by different YOLOv5 models with evolutionary genetic algorithm based hyperparameter optimization. *Computers in Biology and Medicine*, 169, 107895. <https://doi.org/10.1016/J.COMPBIOMED.2023.107895>
- Suhaimin, M. S. M., Hijazi, M. H. A., Kheau, C. S., & On, C. K. (2021). Real-time mask detection and face recognition using eigenfaces and local binary pattern histogram for attendance system. *Bulletin of Electrical Engineering and Informatics*, 10(2). <https://doi.org/10.11591/EEI.V10I2.2859>
- Sun, W., Zhang, G., Zhang, X., Zhang, X., & Ge, N. (2021). Fine-grained vehicle type classification using lightweight convolutional neural network with

- feature optimization and joint learning strategy. *Multimedia Tools and Applications*, 80(20), 30803–30816. <https://doi.org/10.1007/s11042-020-09171-3>
- Suryawanshi, N., & Eswari, J. S. (2022). Chitin from seafood waste: particle swarm optimization and neural network study for the improved chitinase production. *Journal of Chemical Technology & Biotechnology*, 97(2), 509–519. <https://doi.org/10.1002/jctb.6656>
- Tan, J., Yang, J., Wu, S., Chen, G., & Zhao, J. (2021). *A critical look at the current train/test split in machine learning*.
- Titisari, D., Yuniarno, E. M., Purnama, I. K. E., & Purnomo, M. H. (2023). Enhancing Breast Cancer Detection: Optimizing YOLOv8's Performance Through Hyperparameter Tuning. *2023 8th International Conference on Information Technology and Digital Applications (ICITDA)*, 1–6. <https://doi.org/10.1109/ICITDA60835.2023.10427255>
- Tsoi, P. (2024, Oktober). *YOLO11: The Cutting-Edge Evolution in Object Detection — A Brief Review of the Latest in the YOLO Series*. <https://medium.com/@paultsoi1014/yolo11-the-cutting-edge-evolution-in-object-detection-a-brief-review-of-the-latest-in-the-yolo-19065729edfe>
- Vailshery, L. S. (2024). *Cross-platform mobile frameworks used by global developers 2023 | Statista*. <https://www.statista.com/statistics/869224/worldwide-software-developer-working-hours/>
- Van, H.-P.-T., & Hoang, V.-D. (2023). Insulator Detection in Intelligent Monitoring Based on Yolo Family and Customizing Hyperparameters. *Journal of Technical Education Science*, 75A. <https://doi.org/10.54644/jte.75a.2023.1308>
- Vo, X.-T., & Jo, K.-H. (2022). Accurate Bounding Box Prediction for Single-Shot Object Detection. *IEEE Transactions on Industrial Informatics*, 18(9), 5961–5971. <https://doi.org/10.1109/TII.2021.3138336>
- Wai, Y. J., Yussof, Z. B. M., & bin Md Salim, S. I. (2019). Hardware implementation and quantization of tiny-Yolo-v2 using OpenCL. *International Journal of Recent Technology and Engineering*, 8(2 Special Issue 6). <https://doi.org/10.35940/ijrte.B1150.0782S619>

- Wang, X., Wang, A., Yi, J., Song, Y., & Chehri, A. (2023). Small Object Detection Based on Deep Learning for Remote Sensing: A Comprehensive Review. *Remote Sensing*, 15(13). <https://doi.org/10.3390/rs15133265>
- Wang, Y. Y., Wu, H., Shuai, L., Peng, C., & Yang, Z. (2022). Detection of plane in remote sensing images using super-resolution. *PLoS ONE*, 17(4 April). <https://doi.org/10.1371/journal.pone.0265503>
- Wojke, N., Bewley, A., & Paulus, D. (2017). *Simple Online and Realtime Tracking with a Deep Association Metric*. <http://arxiv.org/abs/1703.07402>
- Xu, L., Yan, W., & Ji, J. (2023). The research of a novel WOG-YOLO algorithm for autonomous driving object detection. *Scientific Reports*, 13(1). <https://doi.org/10.1038/s41598-023-30409-1>
- Xu, Y., Zhu, L., Yang, Y., & Wu, F. (2021). Training Robust Object Detectors From Noisy Category Labels and Imprecise Bounding Boxes. *IEEE Transactions on Image Processing*, 30, 5782–5792. <https://doi.org/10.1109/TIP.2021.3085208>
- Yang, H., & Han, X. (2020). Face recognition attendance system based on real-time video processing. *IEEE Access*, 8. <https://doi.org/10.1109/ACCESS.2020.3007205>
- Yang, L., & Shami, A. (2020). *On Hyperparameter Optimization of Machine Learning Algorithms: Theory and Practice*. <https://doi.org/10.1016/j.neucom.2020.07.061>
- Yue, X., Li, H., Shimizu, M., Kawamura, S., & Meng, L. (2022). YOLO-GD: A Deep Learning-Based Object Detection Algorithm for Empty-Dish Recycling Robots. *Machines*, 10(5). <https://doi.org/10.3390/machines10050294>
- Zhao, Z.-Q., Zheng, P., Xu, S., & Wu, X. (2019). *Object Detection with Deep Learning: A Review*. <https://doi.org/https://doi.org/10.48550/arXiv.1807.05511>
- Zhu, H., Zhu, D., Qin, X., & Guo, F. (2023). Efficient and Accurate Beach Litter Detection Method Based on QSB-YOLO. *International Journal of Advanced Computer Science and Applications*, 14(7). <https://doi.org/10.14569/IJACSA.2023.0140735>
- Zmora, N., Wu, H., & Rodge, J. (2021, Juli 14). *Achieving FP32 Accuracy for INT8 Inference Using Quantization Aware Training with NVIDIA TensorRT* |

NVIDIA Technical Blog. <https://developer.nvidia.com/blog/achieving-fp32-accuracy-for-int8-inference-using-quantization-aware-training-with-tensorrt/>

Zoph, B., Cubuk, E. D., Ghiasi, G., Lin, T.-Y., Shlens, J., & Le, Q. V. (2020). *Learning Data Augmentation Strategies for Object Detection* (hlm. 566–583). https://doi.org/10.1007/978-3-030-58583-9_34