

REFERENCES

- Ahmed, S. U., Maisha, F. B. F., & Hossam-E-Haider, M. (2023). Bangla License Plate Detection and Recognition System with YOLOv7 and Improved Custom OCR Engine. *2022 Fourth International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT)*, 1–7.
<https://doi.org/10.1109/icerect56837.2022.10060446>
- Akbar, F. A., & Maulana, H. (2018). Detection of Indonesian Vehicle Plate Location using Harris Corner Feature Detector Method. *Proceedings of International Conference on Science and Technology (ICST 2018)*, 1, 877–881.
<https://doi.org/10.2991/icst-18.2018.177>
- Balasubramaniam, A., & Pasricha, S. (2022). Object Detection in Autonomous Vehicles: Status and Open Challenges. *ArXiv Preprint ArXiv:2201.07706*, 1–6.
<http://arxiv.org/abs/2201.07706>
- Bochkovskiy, A., Wang, C.-Y., & Liao, H.-Y. M. (2020). YOLOv4: Optimal Speed and Accuracy of Object Detection. *ArXiv Preprint ArXiv:2004.10934*.
<http://arxiv.org/abs/2004.10934>
- Bodla, N., Singh, B., Chellappa, R., & Davis, L. S. (2017). Soft-NMS - Improving Object Detection with One Line of Code. *Proceedings of the IEEE International Conference on Computer Vision, 2017-Octob*, 5562–5570.
<https://doi.org/10.1109/ICCV.2017.593>
- Buslaev, A., Parinov, A., Iglovikov, V., Khvedchenya, E., & Druzhinin, M. (2018). *What is image augmentation - Albumentations Documentation*.
https://albumentations.ai/docs/introduction/image_augmentation/
- CEICData. (2019). *India Registered Motor Vehicles: Two Wheelers / Economic Indicators / CEIC*. <https://www.ceicdata.com/en/india/number-of-registered-motor-vehicles/registered-motor-vehicles-two-wheelers>
- Chung, S., Shek, K., Butterfield, J., & Murphy, A. (2021). *Current State of the Art in Object Detection for Autonomous Systems*. September.
- Davis, S., & Boundy, R. (2022). *Transportation Energy Data Book: Edition 40*.
<https://doi.org/10.2172/1878695>
- deepakat002. (2022). *deepakat002/numberplaterecognition*.
<https://github.com/deepakat002/numberplaterecognition>
- Girshick, R. (2015). Fast R-CNN. *Proceedings of the IEEE International Conference on Computer Vision, 2015 Inter*, 1440–1448.
<https://doi.org/10.1109/ICCV.2015.169>

- Girshick, R., Donahue, J., Darrell, T., & Malik, J. (2014). Rich feature hierarchies for accurate object detection and semantic segmentation. *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, 580–587. <https://doi.org/10.1109/CVPR.2014.81>
- Huang, G., Liu, Z., van der Maaten, L., & Weinberger, K. Q. (2016). Densely Connected Convolutional Networks. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 4700–4708. <https://github.com/liuzhuang13/DenseNet>.
- Huang, Z., Wang, J., Fu, X., Yu, T., Guo, Y., & Wang, R. (2020). DC-SPP-YOLO: Dense connection and spatial pyramid pooling based YOLO for object detection. *Information Sciences*, 522, 241–258. <https://doi.org/10.1016/j.ins.2020.02.067>
- Jamtsho, Y., Riyamongkol, P., & Waranusast, R. (2021). Real-time license plate detection for non-helmeted motorcyclist using YOLO. *ICT Express*, 7(1), 104–109. <https://doi.org/10.1016/J.ICTE.2020.07.008>
- Jocher, G., Chaurasia, A., Stoken, A., Borovec, J., NanoCode012, Kwon, Y., Michael, K., TaoXie, Fang, J., imyhxy, Lorna, Yifu), 曾逸夫(Zeng, Wong, C., V, A., Montes, D., Wang, Z., Fati, C., Nadar, J., Laughing, ... Jain, M. (2022). *ultralytics/yolov5: v7.0 - YOLOv5 SOTA Realtime Instance Segmentation*. <https://doi.org/10.5281/ZENODO.7347926>
- Kaggle. (2018). *Indonesian Plate Number* / Kaggle. <https://www.kaggle.com/datasets/imamdigmi/indonesian-plate-number>
- Ketkar, N. (2017). Stochastic Gradient Descent. In *Deep Learning with Python* (pp. 113–132). Apress. https://doi.org/10.1007/978-1-4842-2766-4_8
- Laroca, R., Severo, E., Zanlorensi, L. A., Oliveira, L. S., Goncalves, G. R., Schwartz, W. R., & Menotti, D. (2018). A Robust Real-Time Automatic License Plate Recognition Based on the YOLO Detector. *Proceedings of the International Joint Conference on Neural Networks, 2018-July*. <https://doi.org/10.1109/IJCNN.2018.8489629>
- Li, H., Wang, P., & Shen, C. (2019). Toward End-to-End Car License Plate Detection and Recognition with Deep Neural Networks. *IEEE Transactions on Intelligent Transportation Systems*, 20(3), 1126–1136. <https://doi.org/10.1109/TITS.2018.2847291>
- Liu, S., Qi, L., Qin, H., Shi, J., & Jia, J. (2018). Path Aggregation Network for Instance Segmentation. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 8759–8768. <https://github.com/>
- Maas, A. L., Hannun, A. Y., & Ng, A. Y. (2013). Rectifier Nonlinearities Improve Neural Network Acoustic Models. *Proc. Icml*, 30(1), 3.

- Maranhao, A. (2019). *Car License Plate Detection* / Kaggle. Kaggle.
<https://www.kaggle.com/datasets/andrewmvd/car-plate-detection>
- Menon, A., & Omman, B. (2018). Detection and Recognition of Multiple License Plate from Still Images. *2018 International Conference on Circuits and Systems in Digital Enterprise Technology, ICCSDET 2018*, 1–5.
<https://doi.org/10.1109/ICCSDET.2018.8821138>
- Mobil88. (2022). *Plat Putih Kendaraan Resmi Berlaku di 2022, Simak Faktanya!* / mobil88. <https://www.mobil88.astra.co.id/blog/plat-putih-kendaraan-resmi-berlaku-di-2022-simak-faktanya/>
- Munawar, M. R. (2022). *FAQs on YOLOv5 and YOLOv7.* / by Muhammad Rizwan Munawar / *Augmented Startups* / Medium. Medium.Com.
<https://medium.com/augmented-startups/faqs-on-yolov5-and-yolov7-8f6c44c0512>
- Nurhaida, I., Nududdin, I., & Ramayanti, D. (2020). Indonesian license plate recognition with improved horizontal-vertical edge projection. *Indonesian Journal of Electrical Engineering and Computer Science*, 21(2), 811–821.
<https://doi.org/10.11591/ijeecs.v21.i2.pp811-821>
- Padalia, D. (2022). Detection and Number Plate Recognition of Non- Helmeted Motorcyclists using YOLO. *TechRxiv Preprint*.
<https://doi.org/10.36227/techrxiv.20561343.v1>
- Pan, S. J., & Yang, Q. (2010). A survey on transfer learning. *IEEE Transactions on Knowledge and Data Engineering*, 22(10), 1345–1359.
<https://doi.org/10.1109/TKDE.2009.191>
- Pechiammal, B., & Renjith, J. A. (2017). An efficient approach for automatic license plate recognition system. *ICONSTEM 2017 - Proceedings: 3rd IEEE International Conference on Science Technology, Engineering and Management, 2018-Janua*, 121–129.
<https://doi.org/10.1109/ICONSTEM.2017.8261267>
- Pradhan, D. (2020). *Indian vehicle number plate yolo annotation* / Kaggle. Kaggle.
<https://www.kaggle.com/datasets/deepakat002/indian-vehicle-number-plate-yolo-annotation>
- Raj, S., Gupta, Y., & Malhotra, R. (2022). License Plate Recognition System using YOLOv5 and CNN. *8th International Conference on Advanced Computing and Communication Systems, ICACCS 2022*, 372–377.
<https://doi.org/10.1109/ICACCS54159.2022.9784966>
- Redmon, J., Divvala, S., Girshick, R., & Farhadi, A. (2016). You only look once: Unified, real-time object detection. *Proceedings of the IEEE Computer Society*

- Conference on Computer Vision and Pattern Recognition, 2016-Decem*, 779–788. <https://doi.org/10.1109/CVPR.2016.91>
- Ren, S., He, K., Girshick, R., & Sun, J. (2017). Faster R-CNN: Towards Real-Time Object Detection with Region Proposal Networks. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 39(6), 1137–1149. <https://doi.org/10.1109/TPAMI.2016.2577031>
- Rezatofighi, H., Tsoi, N., Gwak, J., Sadeghian, A., Reid, I., & Savarese, S. (2019). Generalized Intersection over Union: A Metric and A Loss for Bounding Box Regression. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 658–666. <https://doi.org/10.48550/arxiv.1902.09630>
- RidersShare. (2022). *How many motorcycles are the in the world? - Riders Share*. <https://www.riders-share.com/blog/article/number-motorcycles-world-top-countries>
- Saghaei, H. (2016). Proposal for Automatic License and Number Plate Recognition System for Vehicle Identification. *ArXiv Preprint ArXiv:1610.03341*. [https://doi.org/10.1016/S0550-3213\(01\)00405-9](https://doi.org/10.1016/S0550-3213(01)00405-9)
- Setiyono, B., Amini, D. A., & Sulistyaningrum, D. R. (2021). Number plate recognition on vehicle using YOLO - Darknet. *Journal of Physics: Conference Series*, 1821(1). <https://doi.org/10.1088/1742-6596/1821/1/012049>
- Shah, B. (2020). *Complete guide to Object Detection using Deep Learning | by Bhavya Shah | Medium*. <https://17bce011.medium.com/complete-guide-to-object-detection-using-deep-learning-23ffc99ab072>
- Statista. (2022). *Indonesia: number of motorcycles 2021 | Statista*. <https://www.statista.com/statistics/978944/indonesia-number-of-motorcycles-use/>
- Taufiq, I. (2018). *Deep Learning untuk Deteksi Tanda Nomor Kendaraan Bermotor Menggunakan Algoritma Convolutional Neural Network dengan Python dan Tensorflow*. Sekolah Tinggi Manajemen Informatika dan Komputer AKAKOM.
- Wang, C.-Y., Bochkovskiy, A., & Liao, H.-Y. M. (2022). YOLOv7: Trainable bag-of-freebies sets new state-of-the-art for real-time object detectors. *ArXiv Preprint ArXiv:2207.02696*, 7464–7475. <http://arxiv.org/abs/2207.02696>
- Wang, C.-Y., Liao, H.-Y. M., Yeh, I.-H., Wu, Y.-H., Chen, P.-Y., & Hsieh, J.-W. (2019). CSPNet: A New Backbone that can Enhance Learning Capability of CNN. *IEEE Computer Society Conference on Computer Vision and Pattern Recognition Workshops, 2020-June*, 1571–1580. <https://doi.org/10.1109/CVPRW50498.2020.00203>

- Wang, Z., Ma, X., & Huang, W. (2020). Vehicle License Plate Recognition Based on Wavelet Transform and Vertical Edge Matching. *International Journal of Pattern Recognition and Artificial Intelligence*, 34(6), 1–16. <https://doi.org/10.1142/S0218001420500160>
- Xu, B., Wang, N., Chen, T., & Li, M. (2015). Empirical Evaluation of Rectified Activations in Convolutional Network. *ArXiv Preprint ArXiv:1505.00853*. <https://github.com/>
- Yunus, Y. (2022). *New license plate colors to be introduced this year: police - ANTARA News*. <https://en.antaranews.com/news/211333/new-license-plate-colors-to-be-introduced-this-year-police>
- Zhu, L., Geng, X., Li, Z., & Liu, C. (2021). Improving YOLOv5 with Attention Mechanism for Detecting Boulders from Planetary Images. *Remote Sensing*, 13(18), 3776. <https://doi.org/10.3390/rs13183776>
- Zhuang, F., Qi, Z., Duan, K., Xi, D., Zhu, Y., Zhu, H., Xiong, H., & He, Q. (2021). A Comprehensive Survey on Transfer Learning. *Proceedings of the IEEE*, 109(1), 43–76. <https://doi.org/10.1109/JPROC.2020.3004555>