



DAFTAR PUSTAKA

- Aarathi, K. dan Abraham, A. Vehicle color recognition using deep learning for hazy images. 2017 International Conference on Inventive Communication and Computational Technologies (ICICCT), 2017. IEEE, 335-339.
- Ahmad, J., Muhammad, K., Bakshi, S. dan Baik, S. W., 2018, Object-oriented convolutional features for fine-grained image retrieval in large surveillance datasets, *Future Generation Computer Systems*, 81, 314-330.
- Albawi, S., Mohammed, T. A. dan Al-Zawi, S. Understanding of a convolutional neural network. 2017 International Conference on Engineering and Technology (ICET), 21-23 Aug. 2017. 1-6.
- Aldahoul, N., Karim, H. A., Abdullah, M. H. L., Wazir, A. S. B., Fauzi, M. F. A., Tan, M. J. T., Mansor, S. dan Lyn, H. S., 2021, An evaluation of traditional and CNN-based feature descriptors for cartoon pornography detection, *IEEE Access*, 9, 39910-39925.
- Arróspide, J. dan Salgado, L., 2014, A Study of Feature Combination for Vehicle Detection Based on Image Processing, *The Scientific World Journal*, 2014, 196251.
- Berrimi, M. dan Moussaoui, A. Deep learning for identifying and classifying retinal diseases. 2020 2nd International Conference on Computer and Information Sciences (ICCIS), 13-15 Oct. 2020 2020. 1-6.
- Biratu, E. S., Schwenker, F., Ayano, Y. M. dan Debelee, T. G., 2021, A survey of brain tumor segmentation and classification algorithms, *Journal of Imaging*, 9, 7, 179.
- Cai, D., Chen, K., Qian, Y. dan Kämäriinen, J.-K., 2019, Convolutional low-resolution fine-grained classification, *Pattern Recognition Letters*, 119, 166-171.
- Candradewi, I., Harjoko, A. dan Sumbodo, B. a. A., 2021, Intelligent Traffic Monitoring Systems: Vehicle Type Classification Using Support Vector Machine, *International Journal of Artificial Intelligence Research*, 1, 5, 78-90.
- Chabot, F., Chaouch, M., Rabarisoa, J., Teuliére, C. dan Chateau, T. Deep edge-color invariant features for 2D/3D car fine-grained classification. 2017 IEEE Intelligent Vehicles Symposium (IV), 2017. IEEE, 733-738.
- Chantakamo, A. dan Ketcham, M. The multi vehicle recognition using hybrid blob analysis and feature-based. 2015 7th International Conference on Information Technology and Electrical Engineering (ICITEE), 2015. IEEE, 453-457.
- Chen, Y., Zhao, D., Lv, L. dan Li, C. A visual attention based convolutional neural network for image classification. 2016 12th World Congress on Intelligent Control and Automation (WCICA), 2016. IEEE, 764-769.
- Dai, X., Southall, B., Trinh, N. dan Matei, B. Efficient fine-grained classification and part localization using one compact network. Proceedings of the IEEE International Conference on Computer Vision Workshops, 2017. 996-1004.



- Dong, Z., Wu, Y., Pei, M. dan Jia, Y., 2015, Vehicle type classification using a semisupervised convolutional neural network, *IEEE transactions on intelligent transportation systems*, 4, 16, 2247-2256.
- Em, Y., Gag, F., Lou, Y., Wang, S., Huang, T. dan Duan, L.-Y. Incorporating intra-class variance to fine-grained visual recognition. 2017 IEEE International Conference on Multimedia and Expo (ICME), 2017. IEEE, 1452-1457.
- Fang, J., Zhou, Y., Yu, Y. dan Du, S., 2016, Fine-grained vehicle model recognition using a coarse-to-fine convolutional neural network architecture, *IEEE Transactions on Intelligent Transportation Systems*, 7, 18, 1782-1792.
- Fu, H., Ma, H., Liu, Y. dan Lu, D., 2016, A vehicle classification system based on hierarchical multi-SVMs in crowded traffic scenes, *Neurocomputing*, 211, 182-190.
- Fukushima, K., 1980, A self-organizing neural network model for a mechanism of pattern recognition unaffected by shift in position, *Biol. Cybern.*, 36, 193/202.
- Gebru, T., Hoffman, J. dan Fei-Fei, L. Fine-grained recognition in the wild: A multi-task domain adaptation approach. Proceedings of the IEEE international conference on computer vision, 2017. 1349-1358.
- Ghassemi, S., Fiandratti, A., Magli, E. dan Francini, G. Fine-grained vehicle classification using deep residual networks with multiscale attention windows. 2017 IEEE 19th International Workshop on Multimedia Signal Processing (MMSP), 2017. IEEE, 1-6.
- Glorot, X., Bordes, A. dan Bengio, Y. Domain adaptation for large-scale sentiment classification: A deep learning approach. Proceedings of the 28th international conference on machine learning (ICML-11), 2011. 513-520.
- Gonzalez, R. C. dan Woods, R. E. 2018. *Digital Image Processing*, Pearson.
- Hu, C., Bai, X., Qi, L., Chen, P., Xue, G. dan Mei, L., 2015, Vehicle color recognition with spatial pyramid deep learning, *IEEE Transactions on Intelligent Transportation Systems*, 5, 16, 2925-2934.
- Hu, Q., Wang, H., Li, T. dan Shen, C., 2017, Deep CNNs with spatially weighted pooling for fine-grained car recognition, *IEEE Transactions on Intelligent Transportation Systems*, 11, 18, 3147-3156.
- Huang, K. dan Zhang, B. Fine-grained vehicle recognition by deep Convolutional Neural Network. 2016 9th International Congress on Image and Signal Processing, BioMedical Engineering and Informatics (CISP-BMEI), 2016. IEEE, 465-470.
- Huttunen, H., Yancheshmeh, F. S. dan Chen, K. Car type recognition with deep neural networks. 2016 IEEE intelligent vehicles symposium (IV), 2016. IEEE, 1115-1120.
- Kholik, A., Harjoko, A. dan Wahyono, W., 2020, Classification of traffic vehicle density using deep learning, *IJCCS (Indonesian Journal of Computing and Cybernetics Systems)*, 1, 14, 69-80.
- Kim, P.-K. dan Lim, K.-T. Vehicle type classification using bagging and convolutional neural network on multi view surveillance image. Proceedings of the IEEE conference on computer vision and pattern recognition workshops, 2017. 41-46.



- Kurniawan, J., Syahra, S. G. S., Dewa, C. K. dan Afiahayati, 2018, Traffic Congestion Detection: Learning from CCTV Monitoring Images using Convolutional Neural Network, *Procedia Computer Science*, 144, 291-297.
- Lecun, Y., Bengio, Y. dan Hinton, G., 2015, Deep learning, *nature*, 553, 521, 436-444.
- Lecun, Y., Bottou, L., Bengio, Y. dan Haffner, P., 1998, Gradient-based learning applied to document recognition, *Proceedings of the IEEE*, 11, 86, 2278-2324.
- Lin, T.-Y., Roychowdhury, A. dan Maji, S. Bilinear CNN models for fine-grained visual recognition. *Proceedings of the IEEE international conference on computer vision*, 2015. 1449-1457.
- Liu, W., Luo, Z. dan Li, S., 2018, Improving deep ensemble vehicle classification by using selected adversarial samples, *Knowledge-Based Systems*, 160, 167-175.
- Maharjan, P. S. dan Shrestha, A. K., 2015, Automatic Vehicle Detection and Road Traffic Congestion Mapping with Image Processing Technique, *International Journal of Computer Applications*, 16, 114.
- Manzoor, M. A., Morgan, Y. dan Bais, A., 2019, Real-Time Vehicle Make and Model Recognition System, *Machine Learning and Knowledge Extraction*, 2, 1, 611-629.
- Markoulidakis, I., Kopsiaftis, G., Rallis, I. dan Georgoulas, I. Multi-Class Confusion Matrix Reduction method and its application on Net Promoter Score classification problem. The 14th pervasive technologies related to assistive environments conference, 2021. 412-419.
- Meher, S. K. dan Murty, M., 2013, Efficient method of moving shadow detection and vehicle classification, *AEU-International Journal of electronics and Communications*, 8, 67, 665-670.
- Moussa, G. S., 2014, Vehicle type classification with geometric and appearance attributes, *International Journal of Architectural and Environmental Engineering*, 3, 8, 277-282.
- Oquab, M., Bottou, L., Laptev, I. dan Sivic, J. Learning and transferring mid-level image representations using convolutional neural networks. *Proceedings of the IEEE conference on computer vision and pattern recognition*, 2014. 1717-1724.
- Oyedare, T., Shah, V. K., Jakubisin, D. J. dan Reed, J. H., 2023, Keep It Simple: CNN Model Complexity Studies for Interference Classification Tasks, *arXiv preprint arXiv:2303.03326*.
- Peng, X., Hoffman, J., Stella, X. Y. dan Saenko, K. Fine-to-coarse knowledge transfer for low-res image classification. *2016 IEEE International Conference on Image Processing (ICIP)*, 2016. IEEE, 3683-3687.
- Qi, Y. dan Liu, H. 2021. Multi-attribute Recognition of Vehicles Based on the Multi-task Convolutional Neural Network. *Proceedings of the 2020 4th International Conference on Video and Image Processing*. Xi'an, China: Association for Computing Machinery.



- Sarikan, S. S., Ozbayoglu, A. M. dan Zilci, O., 2017, Automated vehicle classification with image processing and computational intelligence, *Procedia Computer Science*, 114, 515-522.
- Shi, W., Gong, Y., Tao, X., Cheng, D. dan Zheng, N., 2018, Fine-grained image classification using modified DCNNs trained by cascaded softmax and generalized large-margin losses, *IEEE transactions on neural networks and learning systems*, 3, 30, 683-694.
- Siddiqui, A. J., Mammeri, A. dan Boukerche, A., 2016, Real-time vehicle make and model recognition based on a bag of SURF features, *IEEE Transactions on Intelligent Transportation Systems*, 11, 17, 3205-3219.
- Sidik, A. D. dan Ansawarman, A., 2022, Prediksi Jumlah Kendaraan Bermotor Menggunakan Machine Learning, *Formosa Journal of Multidisciplinary Research*, 3, 1, 559-568.
- Suhao, L., Jinzhao, L., Guoquan, L., Tong, B., Huiqian, W. dan Yu, P., 2018, Vehicle type detection based on deep learning in traffic scene, *Procedia computer science*, 131, 564-572.
- Sun, W., Zhang, X., Shi, S., He, J. dan Jin, Y., 2017, Vehicle type recognition combining global and local features via two-stage classification, *Mathematical Problems in Engineering*, 2017.
- Triantafyllou, D., Kotoulas, N., Krnidis, S., Ioannidis, D. dan Tzovaras, D. Large vehicle recognition and classification for traffic management and flow optimization in narrow roads. 2017 IEEE SmartWorld, Ubiquitous Intelligence & Computing, Advanced & Trusted Computed, Scalable Computing & Communications, Cloud & Big Data Computing, Internet of People and Smart City Innovation (SmartWorld/SCALCOM/UIC/ATC/CBDCom/IOP/SCI), 2017. IEEE, 1-4.
- Valev, K., Schumann, A., Sommer, L. dan Beyerer, J. A systematic evaluation of recent deep learning architectures for fine-grained vehicle classification. Pattern Recognition and Tracking XXIX, 2018. SPIE, 1064902.
- Verma, A. dan Liu, Y. Hybrid deep learning ensemble model for improved large-scale car recognition. 2017 IEEE SmartWorld, Ubiquitous Intelligence & Computing, Advanced & Trusted Computed, Scalable Computing & Communications, Cloud & Big Data Computing, Internet of People and Smart City Innovation (SmartWorld/SCALCOM/UIC/ATC/CBDCom/IOP/SCI), 2017. IEEE, 1-7.
- Voulodimos, A., Doulamis, N., Doulamis, A. dan Protopapadakis, E., 2018, Deep learning for computer vision: A brief review, *Computational intelligence and neuroscience*, 2018.
- Wang, S., Liu, F., Gan, Z. dan Cui, Z. Vehicle type classification via adaptive feature clustering for traffic surveillance video. 2016 8th International Conference on Wireless Communications & Signal Processing (WCSP), 13-15 Oct. 2016a. 1-5.
- Wang, X., Zhang, W., Wu, X., Xiao, L., Qian, Y. dan Fang, Z., 2019, Real-time vehicle type classification with deep convolutional neural networks, *Journal of Real-Time Image Processing*, 16, 5-14.



- Wang, Y., Zhang, X.-Y., Zhang, Y., Hou, X. dan Liu, C.-L. Exploiting coarse-to-fine mechanism for fine-grained recognition. 2016 IEEE International Conference on Image Processing (ICIP), 2016b. IEEE, 649-653.
- Wei, X.-S., Luo, J.-H., Wu, J. dan Zhou, Z.-H., 2017, Selective convolutional descriptor aggregation for fine-grained image retrieval, *IEEE Transactions on Image Processing*, 6, 26, 2868-2881.
- Wen, X., Shao, L., Xue, Y. dan Fang, W., 2015, A rapid learning algorithm for vehicle classification, *Information sciences*, 295, 395-406.
- Witchyangkoon, B. dan Sirimontree, S., 2016, Visual-based Road Accidents with Dashboard Camera Traffic Monitoring System, *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*, 3, 7, 157-163.
- Xie, S., Yang, T., Wang, X. dan Lin, Y. Hyper-class augmented and regularized deep learning for fine-grained image classification. Proceedings of the IEEE conference on computer vision and pattern recognition, 2015. 2645-2654.
- Yang, J., Chen, Z., Zhang, J., Zhang, C., Zhou, Q. dan Yang, J. 2020. HOG and SVM algorithm based on vehicle model recognition. *Eleventh International Symposium on Multispectral Image Processing and Pattern Recognition (MIPPR2019)*. SPIE.
- Yang, L., Luo, P., Change Loy, C. dan Tang, X. A large-scale car dataset for fine-grained categorization and verification. Proceedings of the IEEE conference on computer vision and pattern recognition, 2015. 3973-3981.
- Yu, Y., Xu, L., Jia, W., Zhu, W., Fu, Y. dan Lu, Q., 2020, CAM: A fine-grained vehicle model recognition method based on visual attention model, *Image and Vision Computing*, 104, 104027.
- Zhan, J., Zhang, H. dan Luo, X. Fine-grained vehicle recognition via detection-classification-tracking in surveillance video. 2014 5th international conference on digital home, 2014. IEEE, 14-19.
- Zhang, Q., Zhuo, L., Hu, X. dan Zhang, J. Fine-grained vehicle recognition using hierarchical fine-tuning strategy for Urban Surveillance Videos. 2016 International Conference on Progress in Informatics and Computing (PIC), 2016a. IEEE, 233-236.
- Zhang, Q., Zhuo, L., Zhang, S., Li, J., Zhang, H. dan Li, X. Fine-grained vehicle recognition using lightweight convolutional neural network with combined learning strategy. 2018 IEEE Fourth International Conference on Multimedia Big Data (BigMM), 2018. IEEE, 1-5.
- Zhang, X., Zhou, F., Lin, Y. dan Zhang, S. Embedding label structures for fine-grained feature representation. Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition, 2016b. 1114-1123.
- Zheng, H., Fu, J., Mei, T. dan Luo, J. Learning multi-attention convolutional neural network for fine-grained image recognition. Proceedings of the IEEE international conference on computer vision, 2017. 5209-5217.