

## DAFTAR PUSTAKA

- [1] K. Tychola, E. Vrochidou, and G. Papakostas, “Deep learning based computer vision under the prism of 3d point clouds: a systematic review,” The Visual Computer, pp. 1–43, 01 2024.
- [2] E. Ahmed, A. Saint, A. E. R. Shabayek, K. Cherenkova, R. Das, G. Gusev, D. Aouada, and B. E. Ottersten, “Deep learning advances on different 3d data representations: A survey,” CoRR, vol. abs/1808.01462, 2018. [Online]. Available: <http://arxiv.org/abs/1808.01462>
- [3] A. Perney, S. Bordas, and P. Kerfriden, “Nurbs-based surface generation from 3d images: spectral construction and data-driven model selection,” Journal of Computational Design and Engineering, vol. 10, 08 2023.
- [4] J. O’Brien and G. Turk, “Modelling with implicit surfaces that interpolate,” ACM Transactions on Graphics, vol. 21, 12 2002.
- [5] M. Botsch, M. Pauly, L. Kobbelt, P. Alliez, B. Levy, S. Bischoff, and C. Roessl, “Geometric modeling based on polygonal meshes,” ACM SIGGRAPH 2007 Papers - International Conference on Computer Graphics and Interactive Techniques, p. 1, 08 2007.
- [6] M. Gao, N. Ruan, J. Shi, and W. Zhou, “Deep neural network for 3d shape classification based on mesh feature,” Sensors (Basel, Switzerland), vol. 22, 2022. [Online]. Available: <https://api.semanticscholar.org/CorpusID:252400640>
- [7] H. Su, S. Maji, E. Kalogerakis, and E. Learned-Miller, “Multi-view convolutional neural networks for 3d shape recognition,” 2015.
- [8] J. Mao, S. Shi, X. Wang, and H. Li, “3d object detection for autonomous driving: A comprehensive survey,” 2023. [Online]. Available: <https://arxiv.org/abs/2206.09474>
- [9] H. Zhang, C. Wang, S. Tian, B. Lu, L. Zhang, X. Ning, and X. Bai, “Deep learning-based 3d point cloud classification: A systematic survey and outlook,” Displays, vol. 79, p. 102456, Sep. 2023. [Online]. Available: <http://dx.doi.org/10.1016/j.displa.2023.102456>
- [10] H. Daghigh, D. Tannant, V. Daghigh, D. Lichti, and R. Lindenbergh, “A critical review of discontinuity plane extraction from 3d point cloud data of rock mass surfaces,” Computers Geosciences, vol. 169, p. 105241, 10 2022.
- [11] A. Kharroubi, F. Poux, Z. Ballouch, R. Hajji, and R. Billen, “Three dimensional change detection using point clouds: A review,” Geomatics, vol. 2, pp. 457–486, 10 2022.
- [12] K. O’Shea and R. Nash, “An introduction to convolutional neural networks,” 2015.
- [13] A. Krizhevsky, I. Sutskever, and G. E. Hinton, “Imagenet classification with deep convolutional neural networks,” Communications of the ACM, vol. 60, 2017.

- [14] E. Shelhamer, J. Long, and T. Darrell, “Fully convolutional networks for semantic segmentation,” *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 39, 2017.
- [15] P. Sermanet, D. Eigen, X. Zhang, M. Mathieu, R. Fergus, and Y. LeCun, “Overfeat: Integrated recognition, localization and detection using convolutional networks,” 2014.
- [16] Y. Zhou and O. Tuzel, “Voxelnet: End-to-end learning for point cloud based 3d object detection,” 2018.
- [17] Y. Guo, H. Wang, Q. Hu, H. Liu, L. Liu, and M. Bennamoun, “A comprehensive overview of deep learning techniques for 3d point cloud classification and semantic segmentation,” *Machine Vision and Applications*, vol. 35, pp. 43–67, 2024.
- [18] —, “Deep learning for 3d point clouds: A survey,” *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 43, no. 12, pp. 4338–4364, 2020.
- [19] C. R. Qi, H. Su, K. Mo, and L. J. Guibas, “Pointnet: Deep learning on point sets for 3d classification and segmentation,” vol. 2017-January, 2017.
- [20] C. R. Qi, L. Yi, H. Su, and L. J. Guibas, “Pointnet++: Deep hierarchical feature learning on point sets in a metric space,” vol. 2017-December. Neural information processing systems foundation, 2017, pp. 5100–5109.
- [21] J. L. Elman, “Finding structure in time,” *Cognitive Science*, vol. 14, no. 2, pp. 179–211, 1990. [Online]. Available: [https://onlinelibrary.wiley.com/doi/abs/10.1207/s15516709cog1402\\_1](https://onlinelibrary.wiley.com/doi/abs/10.1207/s15516709cog1402_1)
- [22] S. Hochreiter and J. Schmidhuber, “Long short-term memory,” *Neural Comput.*, vol. 9, no. 8, p. 1735–1780, nov 1997. [Online]. Available: <https://doi.org/10.1162/neco.1997.9.8.1735>
- [23] I. Sutskever, O. Vinyals, and Q. V. Le, “Sequence to sequence learning with neural networks,” 2014. [Online]. Available: <https://arxiv.org/abs/1409.3215>
- [24] A. Sinha, J. Bai, and K. Ramani, “Deep learning 3d shape surfaces using geometry images,” vol. 9910, 10 2016, pp. 223–240.
- [25] R. Socher, B. Huval, B. Bhat, C. Manning, and A. Ng, “Convolutional-recursive deep learning for 3d object classification,” *NIPS*, vol. 1, 01 2012.
- [26] A. Eitel, J. T. Springenberg, L. Spinello, M. Riedmiller, and W. Burgard, “Multimodal deep learning for robust rgb-d object recognition,” 2015. [Online]. Available: <https://arxiv.org/abs/1507.06821>
- [27] Z. Wu, S. Song, A. Khosla, F. Yu, L. Zhang, X. Tang, and J. Xiao, “3d shapenets: A deep representation for volumetric shapes,” 2015. [Online]. Available: <https://arxiv.org/abs/1406.5670>
- [28] D. Maturana and S. Scherer, “Voxnet: A 3d convolutional neural network for real-time object recognition,” in *2015 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2015, pp. 922–928.

- [29] Y. Wang, Y. Sun, Z. Liu, S. E. Sarma, M. M. Bronstein, and J. M. Solomon, “Dynamic graph cnn for learning on point clouds,” 2019. [Online]. Available: <https://arxiv.org/abs/1801.07829>
- [30] Y. Eldar, M. Lindenbaum, M. Porat, and Y. Zeevi, “The farthest point strategy for progressive image sampling,” IEEE transactions on image processing : a publication of the IEEE Signal Processing Society, vol. 6, pp. 1305–15, 02 1997.
- [31] L. Thomas, “Simple Random Sampling | Definition, Steps & Examples — scribbr.com,” <https://www.scribbr.com/methodology/simple-random-sampling/>, [Accessed 02-08-2024].
- [32] R. B. Rusu and S. Cousins, “3d is here: Point cloud library (pcl),” in 2011 IEEE International Conference on Robotics and Automation, 2011, pp. 1–4.
- [33] D. Li, J. Li, S. Xiang, and A. Pan, “Psegnet: Simultaneous semantic and instance segmentation for point clouds of plants,” Plant Phenomics, vol. 2022, p. 9787643, 2022. [Online]. Available: <https://doi.org/10.34133/2022/9787643>
- [34] K. Taunk, S. De, S. Verma, and A. Swetapadma, “A brief review of nearest neighbor algorithm for learning and classification,” in 2019 International Conference on Intelligent Computing and Control Systems (ICCS), 2019, pp. 1255–1260.
- [35] “What is the k-nearest neighbors algorithm? | IBM — ibm.com,” [https://www.ibm.com/topics/knn#:~:text=The%20k%2Dnearest%20neighbors%20\(KNN,used%20in%20machine%20learning%20today.,](https://www.ibm.com/topics/knn#:~:text=The%20k%2Dnearest%20neighbors%20(KNN,used%20in%20machine%20learning%20today.,) [Accessed 01-07-2024].
- [36] R. O. Mason, “Ethical issues in artificial intelligence,” in Encyclopedia of Information Systems, 2002. [Online]. Available: <https://api.semanticscholar.org/CorpusID:63267571>
- [37] N. Malik and A. Solanki, Simulation of Human Brain: Artificial Intelligence-Based Learning, 04 2020, pp. 150–160.
- [38] R. C. Kurzweil, “The singularity is near: When humans transcend biology,” Foreign Affairs, vol. 85, p. 160, 2006. [Online]. Available: <https://api.semanticscholar.org/CorpusID:146730728>
- [39] “Big data and machine learning for Businesses — slideshare.net,” <https://www.slideshare.net/slideshow/big-data-and-machine-learning-for-businesses/75413684>, [Accessed 29-06-2024].
- [40] I. Goodfellow, Y. Bengio, and A. Courville, Deep Learning. MIT Press, 2016, <http://www.deeplearningbook.org>.
- [41] E. Morales and H. J. Escalante, A brief introduction to supervised, unsupervised, and reinforcement learning, 01 2022, pp. 111–129.
- [42] T. Hastie, R. Tibshirani, J. Friedman, and J. Franklin, The Elements of Statistical Learning: Data Mining, Inference, and Prediction. Springer Science Business Media, 2004.

- [43] O. Montesinos-López, A. Montesinos, and J. Crossa, Multivariate Statistical Machine Learning Methods for Genomic Prediction. Springer Nature Switzerland, 01 2022.
- [44] T. Talaei Khoei, H. Ould Slimane, and N. Kaabouch, “Deep learning: systematic review, models, challenges, and research directions,” Neural Computing and Applications, vol. 35, 09 2023.
- [45] A. Amini, “Introduction to deep learning,” Feb 2019.
- [46] S. Jadon, “Introduction to Different Activation Functions for Deep Learning — shrutijadon,” <https://medium.com/@shrutijadon/survey-on-activation-functions-for-deep-learning-9689331ba092>, [Accessed 03-08-2024].
- [47] S. L. Lohr, Sampling: Design and analysis. Pacific Grove, CA: Duxbury Press, 1999.
- [48] A. K. Jain, M. N. Murty, and P. J. Flynn, “Data clustering: A review,” ACM Computing Surveys (CSUR), vol. 31, no. 3, pp. 264–323, 1999.
- [49] “torch\_geometric.nn.pool.radius &x2014; pytorch\_geometric documentation — pytorch-geometric.readthedocs.io,” [https://pytorch-geometric.readthedocs.io/en/latest/generated/torch\\_geometric.nn.pool.radius.html](https://pytorch-geometric.readthedocs.io/en/latest/generated/torch_geometric.nn.pool.radius.html), [Accessed 01-07-2024].
- [50] “PyTorch — pytorch.org,” <https://pytorch.org/>, [Accessed 01-07-2024].
- [51] “What Is PyTorch? (Definition, How It Works, Benefits) | Built In — builtin.com,” <https://builtin.com/machine-learning/pytorch>, [Accessed 01-07-2024].
- [52] M. Fey and J. E. Lenssen, “Fast graph representation learning with pytorch geometric,” 2019. [Online]. Available: <https://arxiv.org/abs/1903.02428>
- [53] Y. Xu and R. Goodacre, “On splitting training and validation set: A comparative study of cross-validation, bootstrap and systematic sampling for estimating the generalization performance of supervised learning,” Journal of Analysis and Testing, vol. 2, no. 3, pp. 249–262, 2018.
- [54] T. T. Wong and P.-Y. Yeh, “Reliable accuracy estimates from k-fold cross validation,” IEEE Transactions on Knowledge and Data Engineering, vol. 32, no. 8, pp. 1586–1594, 2020.
- [55] J. Solawetz, “Train, validation, test split for machine learning,” <https://blog.roboflow.com/train-test-split/>, 2020, accessed: 2024-09-06.
- [56] IBM, “What is underfitting in machine learning?” <https://www.ibm.com/topics/underfitting#:~:text=Underfitting%20is%20a%20scenario%20in,training%20set%20and%20unseen%20data>, 2024, accessed: 2024-09-06.
- [57] J. Bergstra and Y. Bengio, “Random search for hyper-parameter optimization,” Journal of Machine Learning Research, vol. 13, no. Feb, pp. 281–305, 2012.

- [58] J. Bergstra, R. Bardenet, Y. Bengio, and B. Kégl, “Algorithms for hyper-parameter optimization,” in *Advances in Neural Information Processing Systems*, vol. 26, 2013, pp. 2546–2554.
- [59] T. Akiba, S. Sano, T. Yanase, T. Ohta, and M. Koyama, “Optuna: A next-generation hyperparameter optimization framework,” in *Proceedings of the 25th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining*. ACM, 2019, pp. 2623–2631.
- [60] S. Ruuska, W. Hämmäläinen, S. Kajava, M. Mughal, P. Matilainen, and J. Mononen, “Evaluation of the confusion matrix method in the validation of an automated system for measuring feeding behaviour of cattle,” *Behavioural Processes*, vol. 148, pp. 56–62, 2018. [Online]. Available: <https://api.semanticscholar.org/CorpusID:46870397>
- [61] “Biosignal processing and classification using computational learning and intelligence,” 2022. [Online]. Available: <https://api.semanticscholar.org/CorpusID:245974439>
- [62] R. Q. Charles, H. Su, M. Kaichun, and L. J. Guibas, “Pointnet: Deep learning on point sets for 3d classification and segmentation,” in *2017 IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2017, pp. 77–85.
- [63] D. P. Kingma and J. Ba, “Adam: A method for stochastic optimization,” *arXiv preprint arXiv:1412.6980*, 2015.
- [64] Y. Bengio, “Practical recommendations for gradient-based training of deep architectures,” *CoRR*, vol. abs/1206.5533, 2012. [Online]. Available: <http://arxiv.org/abs/1206.5533>
- [65] Y. Guo, H. Wang, Q. Hu, H. Liu, L. Liu, and M. Bennamoun, “Nearest neighbors meet deep neural networks for point cloud analysis,” *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2020.
- [66] K. Mirzaei, A. P. M. Arashpour, E. Asadi, H. Masoumi, and Y. Bai, “3d point cloud data processing with machine learning for construction and infrastructure applications: A comprehensive review,” *Advanced Engineering Informatics*, vol. 51, p. 101501, 01 2022.