
Subject Bibliography of Machine Learning

Top 20 highly cited articles:

- Abadi, M., Barham, P., Chen, J., Chen, Z., Davis, A., Dean, J., . . . Zheng, X. (2016). TensorFlow: A system for large-scale machine learning. Paper presented at the *Proceedings of the 12th USENIX Symposium on Operating Systems Design and Implementation, OSDI 2016*, 265-283.
- Boyd, S., Parikh, N., Chu, E., Peleato, B., & Eckstein, J. (2010). Distributed optimization and statistical learning via the alternating direction method of multipliers. *Foundations and Trends in Machine Learning*, 3(1), 1-122. doi:10.1561/22000000016
- Breiman, L. (2001). Random forests. *Machine Learning*, 45(1), 5-32.
doi:10.1023/A:1010933404324
- Chang, C. -, & Lin, C. -. (2011). LIBSVM: A library for support vector machines. *ACM Transactions on Intelligent Systems and Technology*, 2(3) doi:10.1145/1961189.1961199
- Chen, T., & Guestrin, C. (2016). XGBoost: A scalable tree boosting system. Paper presented at the *Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, , 13-17-August-2016 785-794. doi:10.1145/2939672.2939785
- Demšar, J. (2006). Statistical comparisons of classifiers over multiple data sets. *Journal of Machine Learning Research*, 7, 1-30.
- Everingham, M., Van Gool, L., Williams, C. K. I., Winn, J., & Zisserman, A. (2010). The pascal visual object classes (VOC) challenge. *International Journal of Computer Vision*, 88(2), 303-338. doi:10.1007/s11263-009-0275-4
- Fawcett, T. (2006). An introduction to ROC analysis. *Pattern Recognition Letters*, 27(8), 861-874.
doi:10.1016/j.patrec.2005.10.010

- Haykin, S. (2005). Cognitive radio: Brain-empowered wireless communications. *IEEE Journal on Selected Areas in Communications*, 23(2), 201-220. doi:10.1109/JSAC.2004.839380
- Jia, Y., Shelhamer, E., Donahue, J., Karayev, S., Long, J., Girshick, R., . . . Darrell, T. (2014). Caffe: Convolutional architecture for fast feature embedding. Paper presented at the *MM 2014 - Proceedings of the 2014 ACM Conference on Multimedia*, 675-678. doi:10.1145/2647868.2654889
- Lecun, Y., Bengio, Y., & Hinton, G. (2015). Deep learning. *Nature*, 521(7553), 436-444. doi:10.1038/nature14539
- LeCun, Y., Bottou, L., Bengio, Y., & Haffner, P. (1998). Gradient-based learning applied to document recognition. *Proceedings of the IEEE*, 86(11), 2278-2323. doi:10.1109/5.726791
- Pan, S. J., & Yang, Q. (2010). A survey on transfer learning. *IEEE Transactions on Knowledge and Data Engineering*, 22(10), 1345-1359. doi:10.1109/TKDE.2009.191
- Paszke, A., Gross, S., Massa, F., Lerer, A., Bradbury, J., Chanan, G., . . . Chintala, S. (2019). PyTorch: An imperative style, high-performance deep learning library. Paper presented at the *Advances in Neural Information Processing Systems*, , 32
- Pedregosa, F., Varoquaux, G., Gramfort, A., Michel, V., Thirion, B., Grisel, O., . . . Duchesnay, É. (2011). Scikit-learn: Machine learning in python. *Journal of Machine Learning Research*, 12, 2825-2830.
- Phillips, S. J., Anderson, R. P., & Schapire, R. E. (2006). Maximum entropy modeling of species geographic distributions. *Ecological Modelling*, 190(3-4), 231-259. doi:10.1016/j.ecolmodel.2005.03.026
- Schmidhuber, J. (2015). Deep learning in neural networks: An overview. *Neural Networks*, 61, 85-117. doi:10.1016/j.neunet.2014.09.003
- Silver, D., Huang, A., Maddison, C. J., Guez, A., Sifre, L., Van Den Driessche, G., . . . Hassabis, D. (2016). Mastering the game of go with deep neural networks and tree search. *Nature*, 529(7587), 484-489. doi:10.1038/nature16961

Srivastava, N., Hinton, G., Krizhevsky, A., Sutskever, I., & Salakhutdinov, R. (2014). Dropout: A simple way to prevent neural networks from overfitting. *Journal of Machine Learning Research*, *15*, 1929-1958.

Viola, P., & Jones, M. (2001). Rapid object detection using a boosted cascade of simple features. Paper presented at the *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, , 1 1511-1518.

Top 20 highly cited gold open access articles:

Adadi, A., & Berrada, M. (2018). Peeking inside the black-box: A survey on explainable artificial intelligence (XAI). *IEEE Access*, *6*, 52138-52160. doi:10.1109/ACCESS.2018.2870052

Bach, S., Binder, A., Montavon, G., Klauschen, F., Müller, K. -, & Samek, W. (2015). On pixel-wise explanations for non-linear classifier decisions by layer-wise relevance propagation. *PLoS ONE*, *10*(7) doi:10.1371/journal.pone.0130140

Bokulich, N. A., Kaehler, B. D., Rideout, J. R., Dillon, M., Bolyen, E., Knight, R., . . . Gregory Caporaso, J. (2018). Optimizing taxonomic classification of marker-gene amplicon sequences with QIIME 2's q2-feature-classifier plugin. *Microbiome*, *6*(1) doi:10.1186/s40168-018-0470-z

Charoentong, P., Finotello, F., Angelova, M., Mayer, C., Efremova, M., Rieder, D., . . . Trajanoski, Z. (2017). Pan-cancer immunogenomic analyses reveal genotype-immunophenotype relationships and predictors of response to checkpoint blockade. *Cell Reports*, *18*(1), 248-262. doi:10.1016/j.celrep.2016.12.019

Chicco, D., & Jurman, G. (2020). The advantages of the matthews correlation coefficient (MCC) over F1 score and accuracy in binary classification evaluation. *BMC Genomics*, *21*(1) doi:10.1186/s12864-019-6413-7

Chou, C. -, Shrestha, S., Yang, C. -, Chang, N. -, Lin, Y. -, Liao, K. -, . . . Huang, H. -. (2018). MiRTarBase update 2018: A resource for experimentally validated microRNA-target interactions. *Nucleic Acids Research*, *46*(D1), D296-D302. doi:10.1093/nar/gkx1067

- Faith, J. J., Hayete, B., Thaden, J. T., Mogno, I., Wierzbowski, J., Cottarel, G., . . . Gardner, T. S. (2007). Large-scale mapping and validation of escherichia coli transcriptional regulation from a compendium of expression profiles. *PLoS Biology*, *5*(1), 0054-0066.
doi:10.1371/journal.pbio.0050008
- Hengl, T., De Jesus, J. M., Heuvelink, G. B. M., Gonzalez, M. R., Kilibarda, M., Blagotić, A., . . . Kempen, B. (2017). SoilGrids250m: Global gridded soil information based on machine learning. *PLoS ONE*, *12*(2) doi:10.1371/journal.pone.0169748
- Jiang, F., Jiang, Y., Zhi, H., Dong, Y., Li, H., Ma, S., . . . Wang, Y. (2017). Artificial intelligence in healthcare: Past, present and future. *Stroke and Vascular Neurology*, *2*(4), 230-243.
doi:10.1136/svn-2017-000101
- Karatzoglou, A., Hornik, K., Smola, A., & Zeileis, A. (2004). Kernlab - an S4 package for kernel methods in R. *Journal of Statistical Software*, *11*, 1-20. doi:10.18637/jss.v011.i09
- Kourou, K., Exarchos, T. P., Exarchos, K. P., Karamouzis, M. V., & Fotiadis, D. I. (2015). Machine learning applications in cancer prognosis and prediction. *Computational and Structural Biotechnology Journal*, *13*, 8-17. doi:10.1016/j.csbj.2014.11.005
- Mohanty, S. P., Hughes, D. P., & Salathé, M. (2016). Using deep learning for image-based plant disease detection. *Frontiers in Plant Science*, *7*(September) doi:10.3389/fpls.2016.01419
- Ordóñez, F. J., & Roggen, D. (2016). Deep convolutional and LSTM recurrent neural networks for multimodal wearable activity recognition. *Sensors (Switzerland)*, *16*(1)
doi:10.3390/s16010115
- Rentzsch, P., Witten, D., Cooper, G. M., Shendure, J., & Kircher, M. (2019). CADD: Predicting the deleteriousness of variants throughout the human genome. *Nucleic Acids Research*, *47*(D1), D886-D894. doi:10.1093/nar/gky1016
- Voulodimos, A., Doulamis, N., Doulamis, A., & Protopapadakis, E. (2018). Deep learning for computer vision: A brief review. *Computational Intelligence and Neuroscience*, *2018* doi:10.1155/2018/7068349

Weiss, K., Khoshgoftaar, T. M., & Wang, D. D. (2016). A survey of transfer learning. *Journal of Big Data*, 3(1) doi:10.1186/s40537-016-0043-6

Wolf, F. A., Angerer, P., & Theis, F. J. (2018). SCANPY: Large-scale single-cell gene expression data analysis. *Genome Biology*, 19(1) doi:10.1186/s13059-017-1382-0

Wright, M. N., & Ziegler, A. (2017). Ranger: A fast implementation of random forests for high dimensional data in C++ and R. *Journal of Statistical Software*, 77(1) doi:10.18637/jss.v077.i01

Xia, J., Psychogios, N., Young, N., & Wishart, D. S. (2009). MetaboAnalyst: A web server for metabolomic data analysis and interpretation. *Nucleic Acids Research*, 37(SUPPL. 2), W652-W660. doi:10.1093/nar/gkp356

Yamashita, R., Nishio, M., Do, R. K. G., & Togashi, K. (2018). Convolutional neural networks: An overview and application in radiology. *Insights into Imaging*, 9(4), 611-629. doi:10.1007/s13244-018-0639-9

Top 10 recent books added in collection:

Advanced Deep Learning for Engineers and Scientists: Practical Approach. Springer, 2021

Cellier, Peggy, et al. Machine Learning and Knowledge Discovery in Databases: International Workshops of ECML PKDD 2019, Würzburg, Germany, September 16-20, 2019, Proceedings, Part II. Vol. 1168, Springer International Publishing, 2020

Dartmann, Guido. Smart Transportation: AI Enabled Mobility and Autonomous Driving. CRC Press, 2021

Eleyedath, Abhary. Application of Machine Learning Techniques for Asphaltic Modeling. Department of Civil Engineering, IITD, 2021

Martinez-Ramon, Manel. Machine Learning Applications in Electromagnetics and Antenna Array Processing. Artech House, 2021

Nastase, Vivi, et al. Synthesis Lectures on Human Language Technologies. Vol. 49;49.; Morgan & Claypool Publishers, 2021, pp. 1–218

Petrelli, Maurizio. Introduction to Python in Earth Science Data Analysis: from Descriptive Statistics to Machine Learning. Springer, 2021

Silva, Felipe Leno, and Anna Helena Reali Costa. Transfer Learning for Multiagent Reinforcement Learning Systems. Vol. 49;49.; Morgan & Claypool Publishers, 2021

Singh, Pratibha. Automated Machine Learning Using Particle Swarm Optimization. Department of Electrical Engineering, IITD, 2021

Steif, Ken. Public Policy Analytics: Code and Context for Data Science in Government. Vol. 10, CRC Press, 2022

Ye, Jong Chul, and Springerlink (Online Service). Geometry of Deep Learning: A Signal Processing Perspective. Vol. 37, Springer Singapore, 2022