

Appendix of Table 1

Table 1 には、代表的な機械学習手法の原理・アルゴリズムが詳しく解説されている総説論文や原著論文を列挙した。その他、俯瞰的に様々な機械学習法を解説した教科書として Bishop (2006), Hastie, Tibshirani, & Friedman (2009), Murphy (2012)なども挙げられる。以下に、それらの書誌情報を記載する。

- Bank, D., Koenigstein, N., & Giryas, R. (2020). Autoencoders. *ArXiv*, 2003.05991. Retrieved from <http://arxiv.org/abs/2003.05991>
- Bell, A. J., & Sejnowski, T. J. (1995). An Information-Maximization Approach to Blind Separation and Blind Deconvolution. *Neural Computation*, 7(6), 1129–1159. <https://doi.org/10.1162/neco.1995.7.6.1129>
- Biau, G. (2012). Analysis of a Random Forests Model. *Journal of Machine Learning Research*, 13(1), 1063–1095.
- Bishop, C. (2006). *Pattern Recognition and Machine Learning*. Berlin, Heidelberg: Springer-Verlag New York.
- Blömer, J., Lammersen, C., Schmidt, M., & Sohler, C. (2016). Theoretical Analysis of the k-Means Algorithm – A Survey. In L. Kliemann & P. Sanders (Eds.), *Algorithm Engineering. Lecture Notes in Computer Science* (Vol. 9220 LNCS, pp. 81–116). Springer. https://doi.org/10.1007/978-3-319-49487-6_3
- Breiman, L. (2001). Random forests. *Machine Learning*, 45, 5–32. <https://doi.org/10.1023/A:1010933404324>
- Cervantes, J., Garcia-Lamont, F., Rodríguez-Mazahua, L., & Lopez, A. (2020). A comprehensive survey on support vector machine classification: Applications, challenges and trends. *Neurocomputing*, 408, 189–215. <https://doi.org/10.1016/j.neucom.2019.10.118>
- Cortes, C., & Vapnik, V. (1995). Support-vector networks. *Machine Learning*, 20(3), 273–297. <https://doi.org/10.1007/BF00994018>
- Cox, D. R. (1958). The Regression Analysis of Binary Sequences Published by : Wiley for the Royal Statistical Society Stable URL : <http://www.jstor.org/stable/2983890>. *Journal of the Royal Statistical Society*, 20(2), 215–242.

- Drucker, H., Surges, C. J. C., Kaufman, L., Smola, A., & Vapnik, V. (1997). Support vector regression machines. *Advances in Neural Information Processing Systems, 1*, 155–161.
- Fomby, T. B., Johnson, S. R., & Hill, R. C. (1984). Review of Ordinary Least Squares and Generalized Least Squares. In T. B. Fomby, S. R. Johnson, & R. C. Hill (Eds.), *Advanced Econometric Methods* (pp. 7–25). New York, NY: Springer New York. https://doi.org/10.1007/978-1-4419-8746-4_2
- Friedman, J. H. (2001). Greedy function approximation: A gradient boosting machine. *The Annals of Statistics, 29*(5), 1189–1232. <https://doi.org/10.1214/aos/1013203451>
- Hastie, T., Tibshirani, R., & Friedman, J. (2009). *The Elements of Statistical Learning*. New York, NY: Springer New York. <https://doi.org/10.1007/978-0-387-84858-7>
- Hinton, G. E. (2006). Reducing the Dimensionality of Data with Neural Networks. *Science, 313*(5786), 504–507. <https://doi.org/10.1126/science.1127647>
- Hyvarinen, A. (1999). Survey on independent component analysis. *Neural Computing Surveys, 2*, 94–128.
- Jiang, L., Wang, D., Cai, Z., & Yan, X. (2007). Survey of Improving Naive Bayes for Classification. In R. Alhajj, H. Gao, J. Li, X. Li, & O. R. Zaïane (Eds.), *Advanced Data Mining and Applications* (pp. 134–145). Berlin, Heidelberg: Springer Berlin Heidelberg.
- Lachenbruch, P. A., & Goldstein, M. (1979). Discriminant Analysis. *Biometrics, 35*(1), 69–85. <https://doi.org/10.2307/2529937>
- Lee, D. D., & Seung, H. S. (1999). Learning the parts of objects by non-negative matrix factorization. *Nature, 401*(6755), 788–791. <https://doi.org/10.1038/44565>
- MacQueen, J. (1967). Some methods for classification and analysis of multivariate observations. *Proceedings of the Fifth Berkeley Symposium on Mathematical Statistics and Probability, 1*, 281–297.
- Melnykov, V., & Maitra, R. (2010). Finite mixture models and model-based clustering. *Statistics Surveys, 4*, 80–116. <https://doi.org/10.1214/09-SS053>
- Murphy, K. P. (2012). *Machine Learning: A Probabilistic Perspective*. The MIT Press.
- Murtagh, F., & Contreras, P. (2012). Algorithms for hierarchical clustering: an

- overview. *WIREs Data Mining and Knowledge Discovery*, 2(1), 86–97.
<https://doi.org/10.1002/widm.53>
- Natekin, A., & Knoll, A. (2013). Gradient boosting machines, a tutorial. *Frontiers in Neuroinformatics*, 7, 21. <https://doi.org/10.3389/fnbot.2013.00021>
- Peterson, L. (2009). K-nearest neighbor. *Scholarpedia*, 4(2), 1883.
<https://doi.org/10.4249/scholarpedia.1883>
- Rosipal, R., & Krämer, N. (2006). Overview and Recent Advances in Partial Least Squares. In C. Saunders, M. Grobelnik, S. Gunn, & J. Shawe-Taylor (Eds.), *Subspace, Latent Structure and Feature Selection* (pp. 34–51). Berlin, Heidelberg: Springer Berlin Heidelberg. https://doi.org/10.1007/11752790_2
- Saeed, N., Nam, H., Haq, M. I. U., & Muhammad Saqib, D. B. (2018). A Survey on Multidimensional Scaling. *ACM Computing Surveys*, 51(3), 1–25.
<https://doi.org/10.1145/3178155>
- Safavian, S. R., & Landgrebe, D. (1991). A survey of decision tree classifier methodology. *IEEE Transactions on Systems, Man, and Cybernetics*, 21(3), 660–674. <https://doi.org/10.1109/21.97458>
- Schmidhuber, J. (2015). Deep learning in neural networks: An overview. *Neural Networks*, 61, 85–117. <https://doi.org/10.1016/j.neunet.2014.09.003>
- Shlens, J. (2014). A Tutorial on Principal Component Analysis. *ArXiv*, 1404.1100. Retrieved from <http://arxiv.org/abs/1404.1100>
- Wang, Y.-X., & Zhang, Y.-J. (2013). Nonnegative Matrix Factorization: A Comprehensive Review. *IEEE Transactions on Knowledge and Data Engineering*, 25(6), 1336–1353. <https://doi.org/10.1109/TKDE.2012.51>