

## REFERENCES

- Albright, J. (2019). Forecasting the progression of Alzheimer's disease using neural networks and a novel preprocessing algorithm. *Alzheimer's & Dementia: Translational Research & Clinical Interventions*, 5(1), 483–491. <https://doi.org/10.1016/j.trci.2019.07.001>
- Almuallim, H. (1996). An efficient algorithm for optimal pruning of decision trees. *Artificial Intelligence*, 83(2), 347–362. [https://doi.org/10.1016/0004-3702\(95\)00060-7](https://doi.org/10.1016/0004-3702(95)00060-7)
- Alzheimer's Association. (2023). 2023 Alzheimer's disease facts and figures. *Alzheimer's & Dementia*, 19, 1598-1695. <https://doi.org/10.1002/alz.13016>
- An, N., Ding, H., Yang, J., Au, R., & Ang, T. F. A. (2020). Deep Ensemble Learning for Alzheimer's Disease Classification. *Journal of Biomedical Informatics*, 105, 103411. <https://doi.org/10.1016/j.jbi.2020.103411>
- Bach, M., Werner, A., & Palt, M. (2019). The proposal of undersampling method for learning from imbalanced datasets. *Procedia Computer Science*, 159, 125–134. <https://doi.org/10.1016/j.procs.2019.09.167>
- Balamurugan, M., Nancy, A., & Vijaykumar, S. (2017). Alzheimer's disease diagnosis by using dimensionality reduction based on Knn classifier. *Biomedical and Pharmacology Journal*, 10(4), 1823–1830. <https://doi.org/10.13005/bpj/1299>
- Bartz, E. (2023). *Hyperparameter tuning for machine and Deep Learning with R*. Springer Nature Singapore.
- Breijyeh, Z., & Karaman, R. (2020). Comprehensive review on Alzheimer's disease: Causes and treatment. *Molecules (Basel, Switzerland)*, 25(24), 5789. <https://doi.org/10.3390/molecules25245789>
- Das, C., Sahoo, A. K., & Pradhan, C. (2022). Multicriteria recommender system using different approaches. *Cognitive Big Data Intelligence with a Metaheuristic Approach*, 259–277. <https://doi.org/10.1016/b978-0-323-85117-6.00011-x>

- Devarriya, D., Gulati, C., Mansharamani, V., Sakalle, A., & Bhardwaj, A. (2020). Unbalanced breast cancer data classification using novel fitness functions in Genetic Programming. *Expert Systems with Applications*, 140, 112866. <https://doi.org/10.1016/j.eswa.2019.112866>
- Elhassan, A. T., Aljourf, M., Al-Mohanna, F., & Shoukri, M. (2017). Classification of Imbalance Data using Tomek Link (T-Link) Combined with Random Under-sampling (RUS) as a Data Reduction Method. *Global Journal of Technology and Optimization*, S1, 111. <https://doi.org/10.4172/2229-8711.S1:111>
- George, N. (2021). *Practical data science with Python: Learn tools and techniques from hands-on examples to extract insights from data*. Packt Publishing.
- Géron, A. (2023). *Hands-on machine learning with scikit-learn, Keras and TensorFlow: Concepts, tools, and techniques to build intelligent systems*. O'Reilly.
- Gustavsson, A., Norton, N., Fast, T., et al. (2023). Global estimates on the number of persons across the Alzheimer's disease continuum. *Alzheimer's Dement*, 19, 658–670. <https://doi.org/10.1002/alz.12694>
- Janiesch, C., Zschech, P., & Heinrich, K. (2021). Machine learning and deep learning. *Electron Markets*, 31, 685–695. <https://doi.org/10.1007/s12525-021-00475-2>
- Jolliffe, I. T., & Cadima, J. (2016). Principal component analysis: A review and recent developments. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 374(2065), 20150202. <https://doi.org/10.1098/rsta.2015.0202>
- Jolly, K. (2018). *Machine learning with scikit-learn quick start guide: Classification, regression, and clustering techniques in Python*. Packt.
- Johnson, J. M., & Khoshgoftaar, T. M. (2019). Deep learning and data sampling with imbalanced Big Data. *2019 IEEE 20th International Conference on Information Reuse and Integration for Data Science (IRI)*. <https://doi.org/10.1109/iri.2019.00038>

- Leevy, J. L., Hancock, J., Khoshgoftaar, T. M., & Abdollah Zadeh, A. (2023). Investigating the effectiveness of one-class and binary classification for fraud detection. *Journal of Big Data*, 10(1). <https://doi.org/10.1186/s40537-023-00825-1>
- Lin, M., Gong, P., Yang, T., Ye, J., Albin, R. L., & Dodge, H. H. (2018). Big Data Analytical Approaches to the NACC Dataset: Aiding Preclinical Trial Enrichment. *Alzheimer Disease and Associated Disorders*, 32(1), 18–27. <https://doi.org/10.1097/WAD.0000000000000228>
- Liu, S., Masurkar, A. V., Rusinek, H., Chen, J., Zhang, B., Zhu, W., Fernandez-Granda, C., & Razavian, N. (2022). Generalizable deep learning model for early Alzheimer's disease detection from structural MRIs. *Scientific Reports*, 12(1). <https://doi.org/10.1038/s41598-022-20674-x>
- Lu, S.-C., Swisher, C. L., Chung, C., Jaffray, D., & Sidey-Gibbons, C. (2023). On the importance of interpretable machine learning predictions to inform clinical decision making in oncology. *Frontiers in Oncology*, 13. <https://doi.org/10.3389/fonc.2023.1129380>
- Mitra, S., Saha, S., & Hasanuzzaman, M. (2020). A multi-view deep neural network model for chemical-disease relation extraction from imbalanced datasets. *IEEE Journal of Biomedical and Health Informatics*, 24(11), 3315–3325. <https://doi.org/10.1109/jbhi.2020.2983365>
- Mohammad, H., & N, S. M. (2015). A review on evaluation metrics for data classification evaluations. *International Journal of Data Mining & Knowledge Management Process*, 5(2), 01–11. <https://doi.org/10.5121/ijdkp.2015.5201>
- Mohammed, R., Rawashdeh, J., & Abdullah, M. (2020). Machine learning with oversampling and undersampling techniques: Overview study and experimental results. 2020 11th International Conference on Information and Communication Systems (ICICS). <https://doi.org/10.1109/icics49469.2020.239556>

- Müller, A. C., & Guido, S. (2016). Introduction to machine learning with Python. O'Reilly & Associates Inc.
- National Alzheimer's Coordinating Center. (2023). National Alzheimer's Coordinating Center. <https://nacccdata.org/>
- National Health Service UK. (2023). Causes Alzheimer's Disease. NHS choices. <https://www.nhs.uk/conditions/alzheimers-disease/causes/>
- Pang, Y., Kukull, W., Sano, M., Albin, R. L., Shen, C., Zhou, J., & Dodge, H. H. (2023). Predicting progression from normal to MCI and from MCI to AD using clinical variables in the National Alzheimer's Coordinating Center Uniform Data Set Version 3: Application of machine learning models and a probability calculator. *The Journal of Prevention of Alzheimer's Disease*. <https://doi.org/10.14283/jpad.2023.10>
- Petch, J., Di, S., & Nelson, W. (2022). Opening the black box: The promise and limitations of explainable machine learning in cardiology. *Canadian Journal of Cardiology*, 38(2), 204–213. <https://doi.org/10.1016/j.cjca.2021.09.004>
- Reddy, G. T., Reddy, M. P., Lakshmana, K., Kaluri, R., Rajput, D. S., Srivastava, G., & Baker, T. (2020). Analysis of dimensionality reduction techniques on Big Data. *IEEE Access*, 8, 54776–54788. <https://doi.org/10.1109/access.2020.2980942>
- Silva, M. V., Loures, C. de, Alves, L. C., de Souza, L. C., Borges, K. B., & Carvalho, M. das. (2019). Alzheimer's disease: Risk factors and potentially protective measures. *Journal of Biomedical Science*, 26(1). <https://doi.org/10.1186/s12929-019-0524-y>
- Shahabadi, M. S. E., Tabrizchi, H., Kuchaki Rafsanjani, M., Gupta, B. B., & Palmieri, F. (2021). A combination of clustering-based under-sampling with ensemble methods for solving imbalanced class problem in Intelligent Systems. *Technological Forecasting and Social Change*, 169, 120796. <https://doi.org/10.1016/j.techfore.2021.120796>

- Song, Y. Y., & Lu, Y. (2015). Decision tree methods: Applications for classification and prediction. *Shanghai Archives of Psychiatry*, 27(2), 130–135. <https://doi.org/10.11919/j.issn.1002-0829.215044>
- Wang, K., Tian, J., Zheng, C., Yang, H., Ren, J., Li, C., Han, Q., & Zhang, Y. (2021). Improving risk identification of adverse outcomes in chronic heart failure using SMOTE+ENN and machine learning. *Risk Management and Healthcare Policy*, Volume 14, 2453–2463. <https://doi.org/10.2147/rmhp.s310295>
- Wang, Z., Wu, C., Zheng, K., Niu, X., & Wang, X. (2019). Smotetomek-based resampling for personality recognition. *IEEE Access*, 7, 129678–129689. <https://doi.org/10.1109/access.2019.2940061>
- Yuan, M., & Kennedy, K. M. (2023). Utility of environmental complexity as a predictor of Alzheimer’s disease diagnosis: A big-data machine learning approach. *The Journal of Prevention of Alzheimer’s Disease*. <https://doi.org/10.14283/jpad.2023.18>
- Zhang, X.-X., Tian, Y., Wang, Z.-T., Ma, Y.-H., Tan, L., & Yu, J.-T. (2021). The epidemiology of Alzheimer’s disease modifiable risk factors and prevention. *The Journal of Prevention of Alzheimer’s Disease*, 1–9. <https://doi.org/10.14283/jpad.2021.15>
- Zheng, M., Li, T., Zheng, X., Yu, Q., Chen, C., Zhou, D., Lv, C., & Yang, W. (2021). UFFDFR: Undersampling Framework with denoising, fuzzy C-means clustering, and representative sample selection for Imbalanced Data Classification. *Information Sciences*, 576, 658–680. <https://doi.org/10.1016/j.ins.2021.07.053>
- Zheng, M., Wang, F., Hu, X., Miao, Y., Cao, H., & Tang, M. (2022). A method for analyzing the performance impact of imbalanced binary data on machine learning models. *Axioms*, 11(11), 607. <https://doi.org/10.3390/axioms11110607>