

REFERENCES

- Aguiar, F. S., Torres, R. C., Pinto, J. V. F., Kritski, A. L., Seixas, J. M., & Mello, F. C. Q. (2016). Development of two artificial neural network models to support the diagnosis of pulmonary tuberculosis in hospitalized patients in Rio de Janeiro, Brazil. *Medical & Biological Engineering & Computing*, 54(11), 1751–1759. <https://doi.org/10.1007/s11517-016-1465-1>
- Amato, F., López, A., Peña-Méndez, E. M., Vañhara, P., Hampl, A., & Havel, J. (2013). Artificial neural networks in medical diagnosis. *Journal of Applied Biomedicine*, 11(2), 47–58. <https://doi.org/10.2478/v10136-012-0031-x>
- Cao, Y., Hu, Z.-D., Liu, X.-F., Deng, A.-M., & Hu, C.-J. (2013). An MLP Classifier for Prediction of HBV-Induced Liver Cirrhosis Using Routinely Available Clinical Parameters. *Disease Markers*, 35, 653–660. <https://doi.org/10.1155/2013/127962>
- Casas, J., Mugellini, E., & Khaled, O. A. (2018). Food Diary Coaching Chatbot. *Proceedings of the 2018 ACM International Joint Conference and 2018 International Symposium on Pervasive and Ubiquitous Computing and Wearable Computers*, 1676–1680. <https://doi.org/10.1145/3267305.3274191>
- Crutzen, R., Peters, G.-J. Y., Portugal, S. D., Fisser, E. M., & Grolleman, J. J. (2011). An Artificially Intelligent Chat Agent That Answers Adolescents' Questions Related to Sex, Drugs, and Alcohol: An Exploratory Study. *Journal of Adolescent Health*, 48(5), 514–519. <https://doi.org/10.1016/j.jadohealth.2010.09.002>
- da Silva, I. N., Hernane Spatti, D., Andrade Flauzino, R., Liboni, L. H. B., & dos Reis Alves, S. F. (2017). Artificial Neural Network Architectures and Training Processes. In *Artificial Neural Networks* (pp. 21–28). Springer International Publishing. https://doi.org/10.1007/978-3-319-43162-8_2
- Denecke, K., Hochreutener, S. L., Pöpel, A., & May, R. (2018). Self-Anamnesis with a Conversational User Interface: Concept and Usability Study. *Methods of Information in Medicine*, 57(5–06), 243–252. <https://doi.org/10.1055/s-0038-1675822>
- Feng, S., Zhou, H., & Dong, H. (2019). Using deep neural network with small dataset to predict material defects. *Materials & Design*, 162, 300–310. <https://doi.org/10.1016/j.matdes.2018.11.060>

- Griffith, K. N., Li, D., Davies, M. L., Pizer, S. D., & Prentice, J. C. (2019). Call center performance affects patient perceptions of access and satisfaction. *The American Journal of Managed Care*, 25(9), e282–e287.
- Griol, D., & Callejas, Z. (2016). Mobile Conversational Agents for Context-Aware Care Applications. *Cognitive Computation*, 8(2), 336–356. <https://doi.org/10.1007/s12559-015-9352-x>
- Hanafizadeh, P., Paydar, N. R., & Aliabadi, N. (2010). Neural Network-based Evaluation of the Effect of the Motivation of Hospital Employees on Patients' Satisfaction. *International Journal of Healthcare Information Systems and Informatics*, 5(4), 1–19. <https://doi.org/10.4018/jhisi.2010100101>
- Jiang, F., Jiang, Y., Zhi, H., Dong, Y., Li, H., Ma, S., Wang, Y., Dong, Q., Shen, H., & Wang, Y. (2017). Artificial intelligence in healthcare: past, present and future. *Stroke and Vascular Neurology*, 2(4), 230–243. <https://doi.org/10.1136/svn-2017-000101>
- Kumar, A., Prakash, U. M., & Sharma, G. K. (2021). Disease Prediction and Doctor Recommendation System using Machine Learning Approaches. *International Journal for Research in Applied Science and Engineering Technology*, 9(VII), 34–44. <https://doi.org/10.22214/ijraset.2021.36234>
- Lederer, J. (2021). *Activation Functions in Artificial Neural Networks: A Systematic Overview*.
- Lee, H., Kang, J., & Yeo, J. (2021). Medical Specialty Recommendations by an Artificial Intelligence Chatbot on a Smartphone: Development and Deployment. *Journal of Medical Internet Research*, 23(5), e27460. <https://doi.org/10.2196/27460>
- Lim, R. M., Munsayac, F. E. T., Bugtai, N. T., & Baldovino, R. G. (2021). A Predictive Tool for Heart Disease Diagnosis using Artificial Neural Network. *2021 IEEE 13th International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment, and Management (HNICEM)*, 1–4. <https://doi.org/10.1109/HNICEM54116.2021.9731858>
- Matthew, R. (2022). *The Development of a Medical Chatbot Using SVM Algorithm*. Unpublished manuscript.
- Middleton, K., Butt, M., Hammerla, N., Hamblin, S., Mehta, K., & Parsa, A. (2016). *Sorting out symptoms: design and evaluation of the "babylon check" automated triage system*.

- Mittal, M., Battineni, G., Singh, D., Nagarwal, T., & Yadav, P. (2021). Web-based chatbot for Frequently Asked Queries (FAQ) in Hospitals. *Journal of Taibah University Medical Sciences*, 16(5), 740–746. <https://doi.org/10.1016/j.jtumed.2021.06.002>
- Montesinos López, O. A., Montesinos López, A., & Crossa, J. (2022). Artificial Neural Networks and Deep Learning for Genomic Prediction of Continuous Outcomes. In *Multivariate Statistical Machine Learning Methods for Genomic Prediction* (pp. 427–476). Springer International Publishing. https://doi.org/10.1007/978-3-030-89010-0_11
- Nwankpa, C., Ijomah, W., Gachagan, A., & Marshall, S. (2018). *Activation Functions: Comparison of trends in Practice and Research for Deep Learning*.
- Olatubosun, O., Olusoga, F., & Abayomi, F. (2015). Diabetes Diagnosis with Maximum Covariance Weighted Resilience Back Propagation Procedure. *British Journal of Mathematics & Computer Science*, 6(5), 381–393. <https://doi.org/10.9734/BJMCS/2015/14871>
- Olson, M., Wyner, A., & Berk, R. (2018). Modern neural networks generalize on small data sets. *Advances in Neural Information Processing Systems 31 (NeurIPS 2018)*.
- Palanica, A., Flaschner, P., Thommandram, A., Li, M., & Fossat, Y. (2019). Physicians' Perceptions of Chatbots in Health Care: Cross-Sectional Web-Based Survey. *Journal of Medical Internet Research*, 21(4), e12887. <https://doi.org/10.2196/12887>
- Pasini, A. (2015). Artificial neural networks for small dataset analysis. *Journal of Thoracic Disease*, 7(5), 953–960. <https://doi.org/10.3978/j.issn.2072-1439.2015.04.61>
- Patterson, J., & Gibson, A. (2017). *Deep Learning: A Practitioner's Approach*. O'Reilly Media.
- Purwanto, Eswaran, C., & Logeswaran, R. (2012). A dual hybrid forecasting model for support of decision making in healthcare management. *Advances in Engineering Software*, 53, 23–32. <https://doi.org/10.1016/j.advengsoft.2012.07.006>
- Refaeilzadeh, P., Tang, L., & Liu, H. (2009). Cross-Validation. In *Encyclopedia of Database Systems* (pp. 532–538). Springer US. https://doi.org/10.1007/978-0-387-39940-9_565
- Rémy, N. M., Martial, T. T., & Clémentin, T. D. (2018). The prediction of good physicians for prospective diagnosis using data mining. *Informatics in Medicine Unlocked*, 12, 120–127. <https://doi.org/10.1016/j.imu.2018.07.005>
- Rossmann, A., Zimmermann, A., & Hertweck, D. (2020). *The Impact of Chatbots on Customer Service Performance* (pp. 237–243). https://doi.org/10.1007/978-3-030-51057-2_33

- Shahid, N., Rappon, T., & Berta, W. (2019). Applications of artificial neural networks in health care organizational decision-making: A scoping review. *PLOS ONE*, *14*(2), e0212356. <https://doi.org/10.1371/journal.pone.0212356>
- Silitonga, P., Bustamam, A., Muradi, H., Mangunwardoyo, W., & Dewi, B. E. (2021). Comparison of Dengue Predictive Models Developed Using Artificial Neural Network and Discriminant Analysis with Small Dataset. *Applied Sciences*, *11*(3), 943. <https://doi.org/10.3390/app11030943>
- Sosale, A. R., Shaikh, M., Shah, A., Chawla, R., Makkar, B. M., Kesavadev, J., Joshi, S., Deshpande, N., Agarwal, S., Maheshwari, A., Madhu, S., & Saboo, B. D. (2018). Real-World Effectiveness of a Digital Therapeutic in Improving Glycaemic Control in South Asians Living with Type 2 Diabetes. *Diabetes*, *67*(Supplement_1). <https://doi.org/10.2337/db18-866-P>
- Stein, N., & Brooks, K. (2017). A Fully Automated Conversational Artificial Intelligence for Weight Loss: Longitudinal Observational Study Among Overweight and Obese Adults. *JMIR Diabetes*, *2*(2), e28. <https://doi.org/10.2196/diabetes.8590>
- Süt, N., & Şenocak, M. (2007). Assessment of the performances of multilayer perceptron neural networks in comparison with recurrent neural networks and two statistical methods for diagnosing coronary artery disease. *Expert Systems*, *24*(3), 131–142. <https://doi.org/10.1111/j.1468-0394.2007.00425.x>
- Tudor Car, L., Dhinakaran, D. A., Kyaw, B. M., Kowatsch, T., Joty, S., Theng, Y.-L., & Atun, R. (2020). Conversational Agents in Health Care: Scoping Review and Conceptual Analysis. *Journal of Medical Internet Research*, *22*(8), e17158. <https://doi.org/10.2196/17158>
- Vita, S., Marocco, R., Pozzetto, I., Morlino, G., Vigilante, E., Palmacci, V., Fondaco, L., Kertusha, B., Renzelli, M., Mercurio, V., Vullo, V., Mastroianni, C. M., & Lichtner, M. (2018). The “Doctor Apollo” chatbot: a digital health tool to improve engagement of people living with HIV. *Journal of the International AIDS Society*.
- Wang, N., Chen, J., Xiao, H., Wu, L., Jiang, H., & Zhou, Y. (2019). Application of artificial neural network model in diagnosis of Alzheimer’s disease. *BMC Neurology*, *19*(1), 154. <https://doi.org/10.1186/s12883-019-1377-4>
- Wang, Y., Tariq, A., Khan, F., Gichoya, J. W., Trivedi, H., & Banerjee, I. (2021). Query bot for retrieving patients’ clinical history: A COVID-19 use-case. *Journal of Biomedical Informatics*, *123*, 103918. <https://doi.org/10.1016/j.jbi.2021.103918>

Webb, G. I., Sammut, C., Perlich, C., Horváth, T., Wrobel, S., Korb, K. B., Noble, W. S., Leslie, C., Lagoudakis, M. G., Quadrianto, N., Buntine, W. L., Quadrianto, N., Buntine, W. L., Getoor, L., Namata, G., Getoor, L., Han, X. J. J., Ting, J.-A., Vijayakumar, S., ... Raedt, L. de. (2011). Leave-One-Out Cross-Validation. In *Encyclopedia of Machine Learning* (pp. 600–601). Springer US. https://doi.org/10.1007/978-0-387-30164-8_469

WebMD - Better information. Better health. WebMD. (2022). Retrieved 14 April 2022, from <https://www.webmd.com/>.