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Designing Disease Prediction Model using Machine Learning Approach

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Abstract: Today, human beings face diverse sicknesses because of the environmental situation and their residing conduct. So, the prediction of sickness at an in advanced degree will became a vital task. But the correct prediction on the idea of signs will become too hard for doctors. The accurate prediction of sickness is the maximum hard task. To triumph over this trouble, information mining performs a vital function to are expecting the sickness. Medical technological know-how has a massive quantity of information increase according to year. Due to the multiplied quantity of information increase with inside the clinical and healthcare area the correct evaluation of clinical information has been cashing in on early affected person care. With the assistance of sickness information, information mining reveals hidden sample facts in a large quantity of clinical information. We proposed fashionable sickness prediction primarily based totally at the signs of the affected person. For the sickness prediction, we use Naive bayes and Random Forest gadget studying set of rules for the correct prediction of sickness. For sickness prediction required sickness signs dataset. In this fashionable sickness prediction, the residing conduct of someone and checkup facts don't forget for the correct prediction. The accuracy of fashionable sickness prediction via way of means of the use of RANDOM FOREST is 84.5% that is extra than the NAIVE BAYES set of rules. And the time and the reminiscence requirement also are extra in NAIVE BAYES than RANDOM FOREST, DECISION TREE. After fashionable sickness prediction, this device is ready t deliver the danger related to a fashionable sickness that is a decrease danger of fashionable sickness or higher.

Keywords: RANDOM FOREST, NAIVE BAYES, DECISION TREE, MACHINE LEARNINIG, DISEASE PREDICTION

REFERENCES

- M. Chen, Y. Hao, K. Hwang, L. Wang, and L. Wang, "Disease prediction by machine learning over big data from healthcare communities", IEEE Access, vol. 5, no. 1, pp. 8869–8879, 2017.
- [2] B. Qian, X. Wang, N. Cao, H. Li, and Y.-G. Jiang, "A relative similarity-based method for interactive patient risk prediction," Springer Data Mining Knowl. Discovery, vol. 29, no. 4, pp. 1070–1093, 2015.
- [3] IM. Chen, Y. Ma, Y. Li, D. Wu, Y. Zhang, and C. Youn, "Wearable 2.0: Enable human-cloud integration in next generation healthcare system," IEEE Common., vol. 55, no. 1, pp. 54–61, Jan. 2017.
- [4] Y. Zhang, M. Qiu, C.-W. Tsai, M. M. Hassan, and A. Alamri, "HealthCPS: Healthcare cyberphysical system assisted by cloud and big data," IEEE Syst. J., vol. 11, no. 1, pp. 88–95, Mar. 2017.
- [5] L. Qiu, K. Gai, and M. Qiu, "Optimal big data sharing approach for telehealth in cloud computing," in Proc. IEEE Int. Conf. Smart Cloud (Smart Cloud), Nov. 2016, pp. 184–189.
- [6] Disease and symptoms Dataset -www.github.com.
- [7] Heart disease Dataset-WWW.UCI Repository.com
- [8] Ajinkya Kunjir, Harshal Sawant, Nuzhat F.Shaikh, "Data Mining and Visualization for prediction of Multiple Diseases in Healthcare," in IEEE big data analytics and computational intelligence, Oct 2017 pp.2325.
- [9] Shanthi Mendis, PekkaPuska, Bo Norrving, World Health Organization (2011), Global Atlas on Cardiovascular Disease Prevention and Control, PP. 3–18. ISBN 978-92-4-156437-3.

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- [10] Amin, S.U.; Agarwal, K.; Beg, R., "Genetic neural network-based data mining in prediction of heart disease using risk factors", IEEE Conference on Information & Communication Technologies (ICT), vol., no., pp.1227-31,11-12 April 2013.
- [11] Palaniappan S, Awang R, "Intelligent heart disease prediction System using data mining techniques," IEEE/ACS International Conference on Computer Systems and Applications, AICCSA 2008., vol., no., pp.108115, March 31 2008-April 4 2008.
- [12] B. Nithya, Dr. V. Ilango Professor, "Predictive Analytics in Health Care Using Machine Learning Tools and Techniques," International Conference on Intelligent Computing and Control Systems, 2017.
- [13] S.Leoni Sharmila, C.Dharuman and P.Venkatesan "Disease Classification Using Machine Learning Algorithms -A Comparative Study", International Journal of Pure and Applied Mathematics Volume 114 No. 6 2017, 1-10.

