

Analytics for Hospitals Health-Care Data

TEAM ID: PNT2022TMID04331

LITERATURE SURVEY

S.NO	PAPER	AUTHOR	YEAR	METHOD AND ALGORITHM	ACCURACY
1.	Predicting Hospital Length of Stay using Neural Networks on MIMIC III Data	Thanos Gentimis Ala' J. Alnaser Alex Durante Kyle Cook Robert Steele	2017	Neural Networks one of the most prominent tools for analyzing big data sets and generally data that comes from different modalities is Artificial Neural Networks. These algorithms emulate the “learn by example” technique that we use to understand a phenomenon. MIMIC is a crucial component of this project is to be able to analyze the large amount of data contained in Electronic Medical Records (EMRs).	80%
2.	Predicting SARS-CoV-2 infection duration at hospital admission:a deep learning solution	Piergiuseppe Liuzzi Silvia Campagnini Chiara Fanciullacci Chiara Arienti Michele Patrini Maria Chiara Carrozza Andrea Mannini	2022	Classical machine learning algorithms, such as optimized linear regressions and random forests, resulted in performances not fully satisfying for this problem. However, non-linear models resulted to significantly improve the prediction accuracy.	90%

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3.	The application of machine learning algorithms in predicting the length of stay following femoral neck fracture	Hao Zhong Bingpu Wang Dawei Wang a Zirui Liu Cong Xing Yu Wu Qiang Gao Shibo Zhu Haodong Qu Zeyu Jia Zhigang Qu Guangzhi Ning Shiqing Feng	2021	In this Three algorithms are used BP,SVM and PCR. Among these three PCR is the most efficient algorithm.	90.91%
4.	Predicting the length of hospital stay of burn patients: Comparisons of prediction accuracy among different clinical stages	Chin-Sheng Yang Chih-Ping Wei Chi-Chuan Yuan Jen-Yu Schoung	2010	Regression techniques like SVM regression and M5 are used to predict the LOS for burn patients.Each of them perform better at different stages of burns.	80%
5.	Machine learning model for predicting the length of stay in the intensive care unit for Covid-19 patients in the eastern province of Saudi Arabia	Dina A. Alabbad Abdullah M. Almuhaideb Shikah J.Alsunidi Kawther S.Alqudaihi Fadimah A.Alamoudi Maha K. Alhobaishi Naimah A. Alaqeel Mohammed S. Alshahrani	2022	Four ML algorithms were used in this problem Random Forest(RF),Gradient Boosting(GB),Exterme Gradient Boosting(EGB),Ensemble Classifier.	94.14%