

ANALYSIS FOR HOSPITAL'S HEALTH CARE DATA
LITERATURE SURVEY

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LITERATURE SURVEY

S.NO	PAPER	AUTHOR	YEAR	METHOD AND ALGORITHM	ACCURACY
1.	Prediction of Length of Stay in the Emergency Department for COVID-19 Patients	Egbe-Etu Etu, Leslie Monplaisir, Suzan Arslanturk , Sara Masoud, (Member, Ieee), Celestine Aguwal , Ihor Markevych, And Joseph Miller	2022	An oversampling technique called the synthetic minority oversampling technique (SMOTE) was employed to address the imbalanced dataset, where observations from the minority class were randomly duplicated. SMOTE generates synthetic samples from the minority class using information available from the given dataset.	82%
2.	Time-to-event modeling for hospital length of stay prediction for COVID-19 patients.	Luo et al Luo, Lian, Feng, Huang & Zhang	2017	Patient-specific LOS distributions can be learned by using survival models. The features from the text and images could be very useful in improving the accuracy of LOS prediction, which could be an interest of the future research direction. Continuous-time survival methods show good predictive capability compared with discrete-time models. The patients' vital signs in the form of numeric data	85%

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3.	A Machine Learning Algorithm Predicts Duration of hospitalization in COVID-19 patients	Joseph Ebinger, Matthew Wells, David Ouyang, Tod Davis, Noy Kaufman, Susan Cheng	2021	Models evaluated include variations on Elastic-net, gradient boosted trees, random forest, support vector machines, logistic regression, a Eureka classifier, generalized additive models, a Vowpal Wabbit classifier, K-nearest neighbors classifiers, residual neural network, a Rulefit classifier, and ensemble models, which were a combination of other model.	80%
4.	Hospital patients' length of stay prediction: A federated learning approach	Md. Mahbubur Rahman a, Dipanjali Kundu a, Sayma Alam Suha a,†, Umme Raihan Siddiqi b, Samrat Kumar Dey	2022	The regression analysis performances of the locally trained models and the server-side model aggregating different number of clients have been compared through various parameter metrics. The findings reveal that, the aggregated model's predictive performance with federated learning is less error-prone, and that the model's performance improves when more clients' parameters are integrated on the server side	72%
5.	Deep learning architecture based on segmented fundus image features for classification of diabetic retinopathy	Abdul Karim, Abdul Rahman, Salman Al Ali Omar Yaghi Sameer	2020	Ct value was inversely associated with hospital stay duration (and time to viral clearance), higher the Ct value is indicative of faster	74%

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		Otoom Stephen L Atkin Manaf Al- Qahtani		time to viral clearance. This could help to manage the infection and allocation of healthcare staff to handle the situation.	