IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 7, May 2023

Secured Medical Records Storage and Insurance Cost Prediction System

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Abstract: *Medical data is very important these days, not only for doctors and medical organizations but also for patients. Every time we visit a doctor we describe our medical situation to them. However, if we consult multiple doctors about our medical condition we have to delineate our entire medical condition to them individually. Also sometimes medical files may get misplaced. We need secure storage for our medical records. Today we have digital storage for everything from educational documents to money, then why not the same for medical data, so that it can be easily available for us whenever needed? This paper focuses on developing a system to provide storage and security to medical records and also develop insurance cost prediction models for users. The Electronic Health Record (EHR) is used to store patient-centric information which is secure and real-time. Health Records will consist of text data as well as images from different pathologies, ophthalmologists, etc. Our proposed system will also predict the insurance cost by using various supervised algorithms such as Stochastic Gradient Boosting, XGBoost and Random Forest Regressor algorithms which give accurate results. These machine learning methods are used to show how different regression models are used in forecasting insurance costs. According to World Health Organization (WHO) data, the global cost of healthcare in 2016 was estimated to be $7.5 trillion USD, or 10% of the global GDP [5]. Understanding the value of health insurance is crucial, and estimating the cost of insurance can persuade customers to buy the right coverage[10]. The dataset we utilized for the Insurance cost prediction model is "Analysis and prediction of health insurance cost*

Keywords: Electronic Health Record Security, ETH storage, Insurance cost prediction, Stochastic gradient boosting

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