Big Data Analytics For Hospital

LITERATURE SURVEY

This paper's primary goal is to offer a thorough examination of the healthcare data analytics research area. In addition to outlining basic principles and gaps, this study analyses earlier research and studies in the field. In order to perform this paper, the study used seven well-known databases and choose the most pertinent papers. The article includes a list of some data analytics tools and methods that have been applied to enhance patient care in a variety of contexts, including medical operations, reports, decision-making, and preventative and early detection systems. Additionally, the systematic review highlighted some potential causes and problems related to healthcare data analytics as well as revealed an intriguing demographic of publication domains and research methodologies, based on geographical distribution theme.

This section covers cutting-edge analytical techniques with a healthcare focus. This encompasses visual analytics, temporal data mining techniques, and clinical prediction models. It is important to integrate diverse data, including clinical and genetic data. Necessary for enhancing the data's ability to forecast, which will also be discussed. We'll show information retrieval methods that can make biomedical search more effective. Data privacy is a major issue in the healthcare industry. Thus, approaches for publishing data while protecting privacy will be discussed.

Secondary use (or re-use) of the data for other reasons, such as quality improvement and clinical research, is one of the promises of the growing critical mass of clinical data gathering in electronic health record (EHR) systems. 1 The Due to incentives for EHR adoption in the US supported by the Health Information Technology for Economic and Clinical Health (HITECH) Act, the growth of such data has drastically expanded in recent years. 2-3 Meanwhile, efforts to sequence genomes and other biological structures and functions have led to a significant increase in other types of health-related data. 4 Analytics is typically used to describe the analysis of this data (or data analytics). This chapter will define the terminology of this field, provide an overview of its promise, describe what work has been accomplished, and list the challenges and opportunities going forward.

Clinicians, healthcare suppliers, policymakers, and patients are taking advantage of exciting new opportunities due to knowledge gained from the analysis of large data sets, a skill that has recently become available. We have carried out a structured assessment of healthcare big data analytics due to the quick rise of publications in the healthcare sector. We concentrate on how big data resources are used with reference to the resource-based view idea to we examine the classification of big data types relevant to healthcare, associated analysis techniques, the value provided for stakeholders, platforms and tools for handling large health data, and future aspects in the field through content analysis of the chosen publications. We give some real-world

instances to illustrate how the developments in healthcare were made feasible. We believe that the findings of this review are stimulating and provide valuable information to practitioners, policy makers and researchers while presenting them with certain paths for future research.

Data is a necessity in today's technological world, and without it, nothing would be possible. The current demand is to follow the trends in data analysis. Data analytics is developing into a future-advancing tool for everyone. Sectors like robotics and medicine are among them. How data analytics are applied in healthcare systems is simply explained in this article. By preventing, diagnosing, and treating diseases, illnesses, and other physical and psychological imbalances in people, health care is the act of preserving and enhancing a person's physical and mental well-being. The four categories of data analytics are descriptive, diagnostic, predictive, and prescriptive analysis. Prescriptive analysis is used in healthcare to produce the best results and improve judgments. Data analytics heavily relies on big data. It facilitates the collection of data from the patients and effectively store them. The reader will be able to grasp the overall concept of health care analytics after reading this entire essay.

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