NARASARAOPETA ENGINEERING COLLEGE

(AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2023-2024

BATCH NUMBER	DB4
TEAM MEMBERS	B.Avinash (20471A05K2) R.Gopichand (20471A05M4) R.Sriphanindra (21475A0517)
GUIDE	N.VIJAYA KUMAR M.E
TITLE	AI-driven intelligent forecasting of medical conditions with random forest classifier and Naive Bayes
DOMAIN/TECHNOLOGY	Machine Learning and Artificial Intelligence
BASE PAPER LINK	https://link.springer.com/article/10.1007/s11227-020-03481-x%23article-info
DATASET LINK	https://www.kaggle.com/datasets/aasheesh200/framingham-heart-study-dataset https://www.kaggle.com/datasets/uciml/breast-cancer-wisconsin-data https://github.com/disojn/Diabetes-Prediction/blob/master/diabetes.csv
SOFTWARE REQUIREMENTS	Browser: Any latest browser like Chrome Operating System: Windows 7 Server or later Python (COLAB)
HARDWARE REQUIREMENTS	Processor: Intel® Dual Core 2.0GHz minimum Hard Disk: 1TB minimum RAM: 8GB or more

ABSTRACT

In the healthcare field, a wealth of patient data, ranging from reported symptoms to detailed lab results, is routinely collected. This extensive dataset is crucial for physicians as they strive to accurately diagnose various medical conditions. However, with the integration of artificial intelligence (AI) techniques, new opportunities for disease classification have emerged. Machine learning algorithms like Naive Bayes now play a key role in this area. By leveraging AI, these algorithms improve traditional diagnostic methods, leading to more effective and precise disease identification.

In this study, our main goal is to use these methodologies to enhance the performance of disease classification algorithms. Through careful evaluation, we aim to determine how effective Naive Bayes and Random Forest algorithms are when applied to disease datasets. By comparing their results to those of conventional diagnostic methods, we hope to highlight the potential of AI-driven solutions in advancing disease diagnosis and management. In terms of using AI[1] to enhance healthcare procedures, this research constitutes a substantial advancement.