Journal Test

Abstract:

In recent years, machine learning techniques have become essential in data classification tasks across various domains. This study explores the effectiveness of neural networks in improving classification accuracy compared to traditional methods such as k-Nearest Neighbors (KNN) and Support Vector Machines (SVM). The dataset used in this research consists of real-world medical records, where predictive analysis is crucial for early diagnosis. Experimental results demonstrate that neural networks achieve a higher accuracy rate due to their ability to capture complex patterns in the data. Furthermore, hyperparameter tuning and optimization techniques significantly impact performance. This research highlights the potential of neural networks in predictive analysis and provides insights into selecting the most suitable model for classification problems.