PROJECT REPORT

COMPARISON OF RANDOM FOREST, SUPPORT VECTOR MACHINE, AND K-NEAREST NEIGHBORS TO PREDICT MENTAL HEALTH CONDITIONS

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ABSTRACT

Mental health problems are common nowadays for a variety of reasons. These problems can be anticipated with the application of artificial intelligence technologies. According to several journals, the most accurate model for predicting mental health issues is Random Forest. Therefore, the other journals suggested that Random Forest, K-Nearest Neighbors, and Support Vector Machine produce comparable accuracy outcomes. The purpose of this study is to compare the models K-Nearest Neighbors, Random Forest, and Support Vector Machine in order to determine which one performs the best in predicting mental health problems. The dataset for this research are Mental Disorder Classification taken from psychologists patient records.

Keyword: Mental Health, Support Vector Machine, K-Nearest Neighbors, Random Forest, Comparison