



PROJECT REPORT
COMPARISON OF CNN AND SVM FOR
DEPRESSION IDENTIFICATION ON SOCIAL MEDIA

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ABSTRACT

Currently, mental health is a hot issue that is being discussed a lot by society. There are many types of mental disorders, one of which is depression. To identify this disorder early, we can identify it through social media Twitter by using text classification methods. The process of identifying depression in this research was carried out on Twitter. This is because Twitter is one of the social media that is widely used by the public. This research uses two algorithms to identify depression on Twitter, namely the Convolutional Neural Network (CNN) and the Support Vector Machine (SVM). This research aims to find out how both algorithms work and determine which algorithms work better for this task. The text classification results with the best performance were achieved by the SVM algorithm. In class 0, SVM achieved a precision of 95%, recall of 91%, and f1-score of 93%. Meanwhile, in class 1 SVM achieved precision of 93%, recall of 96%, and f1-score of 95%. The accuracy produced by SVM is 94%.

Keyword: text classification, depression, twitter, cnn, svm

