

## **ABSTRACT**

### ***Accuracy Comparison of K-Nearest Neighbors and Support Vector Machine to Predict Hypertension Potential***

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*One of the consequences of heart failure is hypertension or high blood pressure. Hypertension is a disease that does not cause symptoms in sufferers so it is often called "The Silent Killer". Currently, there is no technology that can predict the potential for hypertension. In this case, the machine learning algorithm KNN (K-Nearest Neighbors) and Support Vector Machine (SVM) can be used to predict hypertension by using the features of average blood sugar level, BMI, and age based on the classification of training data provided against test data. . Based on this, this study aims to compare the accuracy of the application of KNN and SVM to predict the potential for hypertension using the Python programming language. The method used in this research is qualitative and quantitative numerical data. Collecting data in the form of literacy studies, dataset retrieval, and algorithm testing. From 4909 lines of data, it is divided into 7 : 3 so as to produce training data of 3436 lines and test data of 1473 lines. The accuracy resulting from the KNN modeling that has been done is 91.17%. While the accuracy resulting from SVM modeling is 91.04%.*

**Keywords** : Hypertension, KNN, SVM, Machine Learning, Python

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