

## ABSTRACT

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*One of the many organs in the human body is the heart. The function of the heart is to pump blood all over the body. If the heart is suffering damage or interference, it could cause many harms to people starting from chest pain, fatigue, dizziness, and the worst is death. To prevent this is by doing a heart health check to get the treatment needed. However, the patients have to come to the hospital to do a heart health check, which costs a lot of money. Therefore, we propose another method of diagnosing heart disease. This study uses a machine learning bagging algorithm (random forest) to detect heart disease with two classes: no disease or disease. The evaluation results show that the bagging algorithm achieved 97.8% accuracy from the best optimal grid search parameters. It can be concluded that this proposed method can fairly discriminate heart disease.*

*Keywords: Heart disease, Bagging, Machine Learning*