Abstract

In this paper we present a comparison between NeuroEvolution of Augmenting Typologies (NEAT) algorithm with Backpropagation Neural Network for the prediction of breast cancer. Machine learning algorithms could be used to enhance the performance of medical practitioners in the diagnosis of breast cancer. NEAT is a promising machine learning algorithm, which combines genetic algorithms and neural network. We compare the performance of these two algorithms on a standard benchmark dataset. Our results demonstrate that NEAT outperforms Backpropagation Neural Network, and we show that experimentally that NEAT has better generalization and much lower computational cost.

References


Index Terms

Computer Science, Artificial Intelligence
Keywords

NEAT, Backpropagation, Breast Cancer.