BVRIT HYDERABAD
College of Engineering for Women
Department of Information Technology
Major Project - Academic Year 2016-20

TEAM 14

Optimization using Genetic Algorithms

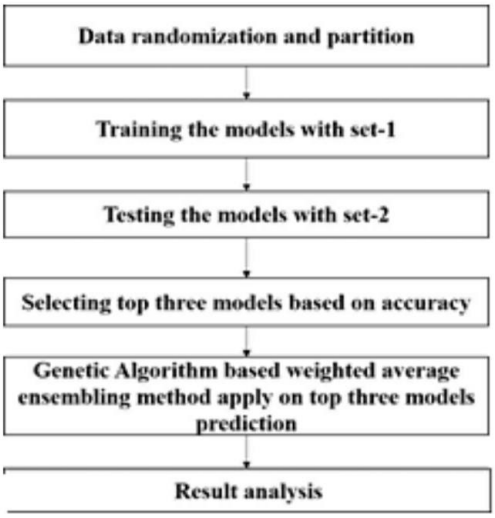
Abstract

Using genetic algorithms, we attempt to find an optimal and intelligent solutions. Here, we have taken cancer prediction as an example and to improve its accuracy we have used genetic algorithms instead of backpropagation. We apply different algorithms like Nueral Networks. Genetic algorithm is very much useful in finding the optimial initializing weights which helps in getting more accuracy.

Modules

1 .Data randomization and partition
2 .Training the models with set-1
3 .Training the models with set-2
4 .Selection top three models based on accuracy
5 .Genetic Algorithm bades weight average ensembli g method apply on top three model predictions
6 .Result Analysis

Architecture



Tools and Technologies

- **Windows 7/10**
- **Python 3**
- **Java**
- **Jupyter Notebook**
- **Eclipse**

Conclusion and Future Scope

In this project, we have compared the accuracies of classification algorithms, such as Neutral Networks with the genetic algorithms for optimization and tell whether the cancer is benign or malignant and the accuracy for genetic algorithm is the best one.The future scope of the project is that, to try and implement the other algorithms like SVM and Decision Trees and also develop user interface for the whole model.

Guide

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