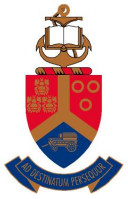

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

COS 710: Artificial Intelligence
Assignment 3: Modularization
Due Date: 26 October 2020

This assignment involves extending either Assignment 1 or Assignment 2 to incorporate modularization using automatically defined functions. The performance of the genetic programming algorithm without and with automatically defined functions must then be compared in terms of accuracy/MSE, computational effort and structural complexity.

Assignments must be submitted via clickUP. The source code, compiled code and report must be submitted. The report must include:

- A description of the GP algorithm with ADFs in terms of the following:
  - The representation used
  - Define the fitness function used
  - The selection method used
  - Describe the genetic operators used
  - Termination criterion used
- Tables presenting the best, average and standard deviation of the accuracy/MSE for training and accuracy/MSE for testing.
- A comparison of the performance with the genetic programming algorithm from Assignment 1 or Assignment 2 in terms of accuracy/MSE, computational effort and structural complexity.

Total: 25