COMP390: Evolving a Sorting Algorithm with SNGP

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03/2019

Introduction

Genetic Programming Overview

Single Node Genetic Programming Overview

Reproducing Kinnear's Results

Attempting SNGP

Conclusion

Bibliography

Project Description

Aims:

- To replicate K. E. Kinnear's work [2] in evolving a sorting algorithm using Genetic Programming
- To re-implement Kinnear's work using Single Node Genetic Programming, a variant of GP invented by Dr David Jackson [1]
- To compare the effectiveness of the two approaches to evolving a sorting algorithm

What Was Achieved?

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Bibliography

[1] Jackson, D.
A new, node-focused model for genetic programming.
In *Genetic Programming* (2012), A. Moraglio, S. Silva, K. Krawiec, P. Machado, and C. Cotta, Eds., Lecture Notes in Computer Science, Springer Berlin Heidelberg, pp. 49–60.

[2] Kinnear, K. E.
Evolving a sort: Lessons in genetic programming.
In *in Proceedings of the 1993 International Conference on Neural Networks* (1993), IEEE Press, pp. 881–888.