Artificial Intelligence’s Project – Pursuit Domain

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**ABSTRACT**

In this paper, ………..

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1. INTRODUCTION

The main objective of this project is to develop an application that uses genetic algorithms to evolve controllers based on neural networks to the problem of agents from predators and prey. More specifically intended to be evolved from the neural network weights, as determined by the topology (number of layers, number and type of neurons in each layer). The performance of the controllers should be assessed taking into account the ability to perform the desired task: to encircle the prey. For this, different scenarios should be used, with different initial positions agents and secured so as to prevent the evolved controllers to specialize in a particular scenario. It is also intended to be developed a random controller and an ad-hoc controller whose performance can be compared with those of evolved controllers.

Each controller should receive as input the perceptions of the agent and return as output the action to perform for this in the current environment iteration. Notice that, even if the controller is the same for different agents, each agent should have its own controller.

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1. ACKNOWLEDGMENTS

Our thanks to ACM SIGCHI for allowing us to modify templates they had developed.

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