CWSF 2009 - Winnipeg, Manitoba

Adam Bennett

Using Genetic Algorithms to Solve the Traveling Salesman Problem

Division: Earth & Environmental Sciences / Automotive
Category: Senior
Region: Rideau-St. Lawrence
City: Smiths Falls, ON
School: Smiths Falls District Collegiate Institute
Abstract: This project describes the design, development and testing of software which uses genetic algorithms to solve Traveling Salesman Problems in two or three dimensional space and on the surface of a sphere. This program is used to investigate various aspects of genetic algorithms, including the effects of changing the population size, number of locations, and number of mutations. Applications for autonomous vehicles are considered.

Biography
Adam Bennett was born on July 17, 1992, in Ottawa, Ontario. He currently lives outside Smiths Falls with his parents, Diane and David, and his two sisters, Laura and Dayna. Currently he is a Grade 11 student at Smiths Falls District Collegiate Institute, in Smiths Falls, Ontario. His interests include Electronics, Robotics, Programming Languages, and Computer Science.

Awards	Value
Dalhousie University Faculty of Science Entrance Scholarship Senior Silver Medallist - $2000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	$2 000
The University of Western Ontario Scholarship Silver Medallist - $1500 Entrance Scholarship Sponsor: University of Western Ontario	$1 500
University of Ottawa Entrance Scholarship Senior Silver Medallist - $3000 Entrance Scholarship Sponsor: University of Ottawa	$3 000
Honourable Mention - Computing & Information Technology - Senior Sponsor: Intel of Canada, Ltd.	$100
Silver Medal - Automotive - Senior Sponsor: AUTO21	$700
Total	$7 300