CWSF 2009 - Winnipeg, Manitoba

Manel Zeghal, Ryan Warnock

Artificial Intelligence for a Healthier Canada

Division: Life Sciences / None
Category: Junior
Region: Ottawa
City: Ottawa, ON
School: Queen Elizabeth P.S.

Abstract: The artificial neural network modelling technique (ANN) was used to predict heart disease prevalence as affected by gender, age, hypertension, diabetes, inactivity, smoking and obesity. ANN predicted the heart disease prevalence with an absolute average error lower than 5% and showed that it is highly dependent on inactivity and to a lesser degree on smoking. Activity is the key to reducing the heart disease prevalence.

Biographies
Manel - "I am not discouraged, because every wrong attempt discarded is another step forward"- Thomas Alva Edison. Manel bases this quote on every aspect of her daily life in order to succeed. Ms. Manel Zeghal is presently in grade eight and attends Queen Elizabeth P.S. in Ottawa. This is Manel's second year attending the Regional Science Fair, but her first year going to the CWSF. At school, she continually maintains a 90+ average, is a member of the school band and earned the part of a major role in the class play. She is a member of the World Tae-kwon-do Federation and a member of the Ontario Junior Lifeguard Club at the local community cent...
Ryan - Ryan Warnock, aged 14, goes to school at Queen Elizabeth Public School in Ottawa, Ontario. His average school mark remains above 80% since he started grade 7. Ryan enjoys playing soccer with his friends at school and plays on a soccer team after school. Ryan has fun at piano and trampoline lessons. He has 7 years of experience playing piano, and 2 years playing alto saxophone in the school band. Ryan spends most of his free time at home playing games outside with his neighbors or playing with his rubik's cube. Ryan can solve the rubik's cube in under 1 minute, and is still practicing to solve it faster.

Awards	Value
Honourable Mention - Health Sciences - Junior Sponsor: Canadian Institutes of Health Research	$100
Total	$100