

CWSF 2019 - Fredericton, New Brunswick



Abdalrahman Tawhid

Extensive Development of Statistical Models to Predict Future Health Care Trends

Challenge: Innovation

Category: Senior

Region: Cariboo Mainline

City: Kamloops, BC

School: Sa-hali Secondary

Abstract: As chronic disease develops and more people are afflicted with a disease, we will see a huge increase in health resource consumption. This project utilizes machine learning methods to create statistical models that allow us to predict with a high accuracy the number of Diabetic patients that will be affected with diabetes, how many will then visit the hospital, general and specialist physicians.

Biography

Abd-alrahman Tawhid is in grade 12. My interest is solving real life applications based on health and computer. I like to explore and dig in problems regardless the time spent. I've anticipated in Science Fair since 2011. I was a co-investigator for a project on using solar energy for cooking and entered it in 2011. Another project was using a Raspberry Pi to measure the temperature inside home and controlling it outside your home. I also designed an app to cut the bill of electricity at home. I decided to focus on the health industry this year, in finding a solution to fighting Chronic Disease. I used the field of Data Mining in working with a dataset provided from the Public health Agency of Canada, and came up with predictive models to predict early stages of a certain disease or features of a disease, and put it in an app. A long term for this project is to extend this app from residential to industry. It is important to select a project that will be useful to our real life problems, it is essential that you continue in the project to enhance it as much as you can.

Awards

Value

Statistical Society of Canada Award - Senior Sponsor: Statistical Society of Canada	\$1 000
Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$3 000