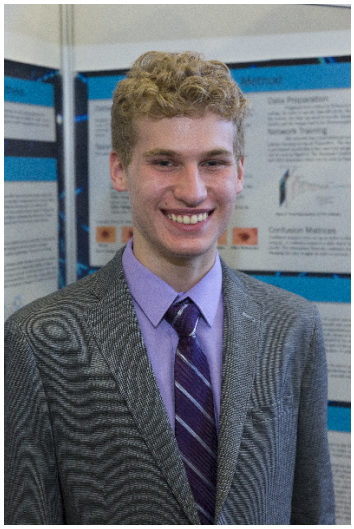
CWSF 2018 - Ottawa, Ontario



Sean Romel

Using Artificial Intelligence to Detect Skin Cancer

Challenge: Health
Category: Senior
Region: Bay Area
City: Brantford, ON
School: North Park Collegiate & Vocational
Abstract: The goal of this project was to program an artificial intelligence that could detect skin cancer given images of skin. Melanoma, a very deadly form of skin cancer, is hard to detect but easy to treat in the early stages. A better system to detect skin cancer is needed and in this project was devised using a form of artificial intelligence called a neural network.

Biography

My name is Sean Romel and I'm a Grade 12 student at North Park Collegiate and Vocational School in Brantford, Ontario. My favourite subjects are math, computer science, and music. For extra-curricular activities, I play the electric bass in the Wind Ensemble, I play the drums in the stage band, and I am the top Grade 12 for the school's chess club. Outside of school, I took piano lessons for 8 years, and have been taking drum lessons for 5 years. On top of playing several instruments, I write them as well. I also have been a part of Scouts for the past decade and enjoy the outdoors and camping. After secondary school, I intend to study computer science at the University of Waterloo. The inspiration behind my project comes from two things; my interest in artificial intelligence and the low detectability of Melanoma. I know firsthand the issue of not being able to detect skin cancer, as my father had a cancerous lesion on his hand which took several trips to several doctors just to receive a diagnosis. This, coupled with my fascination with being able to teach computers to perform tasks is what led to this project's inception.