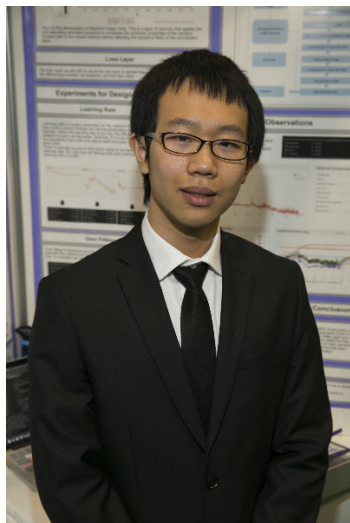## Ben Xie

A Computerized Traffic Light Detector

Défi: Innovation
Catégorie: Sénior
Région: Simcoe County
Ville: Collingwood, ON
École: Pretty River Academy
Sommaire: This science fair project involved the development of computer algorithms that use deep learning and a convolutional neural network to analyze pictures from automobile data recorders. This computer program detects a traffic light and determines its color, in order to assist drivers who are color blind. It can also be used as a sensor for a self-driving car.

Biographie

I am a student currently studying at Pretty River Academy who is interested in physics, engineering and origami. In my spare time, I work on projects that allow me to learn new skills and concepts. My project for the CWSF is inspired by a member of my home stay family. He complains about the difficulty of determining the color of traffic lights, because he is colorblind. So I decided to develop a traffic light detector. I wanted a program that could help colorblind people identify traffic light color while they are driving by using deep learning and convolutional neural network technology. Currently, I have been accepted to the physics program at UCD, which is well known for their background in the rules and laws of the universe, and their development of new technologies in this field. It is my first time at CWSF, and I am really looking forward to meeting the brilliant minds there!

Prix	Valeur
Prix d'excellence - Sénior - Médaille d'argent Commanditaire: Sciences jeunesse Canada	
Bourses d'admission de la Faculté des sciences de l'Université Dalhousie Médaillé d'argent, sénior - Bourse d'admission de 2 500 $ Commanditaire: Université Dalhousie, Faculté des sciences	2 500,00 $
Prix d'admission en sciences de UBC (Vancouver) Médaillé d'argent, sénior - Bourse d'admission de 2 000 $ Commanditaire: The University of British Columbia (Vancouver)	2 000,00 $
Bourse d'admission de l'Université d'Ottawa Médaillé d'argent, sénior - Bourse d'admission de 2 000 $ Commanditaire: Université d'Ottawa	2 000,00 $
Bourse d'études de Western University Médaillé d'argent - Bourse d'admission de 2 000 $ Commanditaire: Université Western	2 000,00 $
Total	8 500,00 $