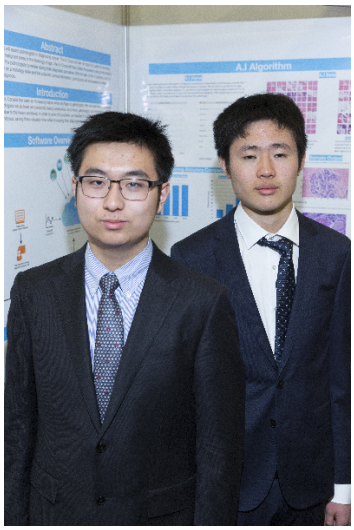
CWSF 2018 - Ottawa, Ontario



Jing Wang, Yi Yuan Ma

Cancer Detection with Artificial Intelligence

Challenge: Health
Category: Senior
Region: Toronto
City: Toronto, ON, North York, ON
School: North Toronto

Abstract: Breast cancer is the most common cancer in women. However, its diagnosis could be delayed due to time-consuming and inaccurate biopsy interpretation. To solve this problem, we designed a machine learning program to inform pathologists of potential malignant tumours, greatly reducing the likelihood of misdiagnosis and increasing interpretation efficiency.

Biographies

Jing - My name is Jing Wang. I am from China where I finished Grade 10 last year and I am now studying in North Toronto C.I. I am especially interested in computation and logic, which has led to considerable abilities of mine in mathematics and computer science. In the past years, I have achieved great results in math contests such as AIME, Fermat, Euclid and those in China. Moreover, in the field of computer science, I have been able to use programming languages in my favour since Grade 10. So far, I have written several applications including games, problem solvers, puzzle templates and my current project with Yiyuan Ma --- cancer detection AI. I ...

Yi Yuan - I am a grade 11 high school student in North Toronto Collegiate Institute. I have a passion for improving health care diagnosis by using innovative technology. My partner and I were inspired to create a breast cancer detection AI after hearing about the inaccurate and slow process in developing pathology reports. Thus, we decided to use AI to solve this pressing problem.

Awards	Value
Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
Carleton University Entrance Award Senior Bronze Medallist - $1,000 Entrance Award Sponsor: Carleton University	$1 000
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