

CWSF 2019 - Fredericton, New Brunswick



Annika Paliwal

Determining Cognitive Abilities of Individuals through Associative Memory Games

Challenge: Health

Category: Junior

Region: Manitoba Schools Science Symposium

City: Winnipeg, MB

School: Acadia School

Abstract: A common symptom associated with Alzheimer's Disease is poor cognitive memory where a patient fails to associate related concepts. In this study, a computer game was coded to test the cognitive memory of Alzheimer's patients. The game relies on a patient identifying the shapes associated with specific graphics. The game presents successively difficult levels if the patient is able to recognize images at trivial levels.

Biography

Annika Paliwal is a Grade 8 student at Acadia Junior High. She is passionate about science, mathematics, and computer programming. She started computer programming at the age of 9 and self-taught JavaScript. She explored with writing simple programs and animations. Master Your Mind is her first attempt at creating a comprehensive game that is fun to play and evaluates people's cognitive abilities while keeping track of their performance. In her free time, she likes to play sports, write fiction and debate. In the future, she wants to help people through novel scientific inventions. She is currently involved with Engineers Geoscientists Manitoba to generate awareness for women in science and engineering through their 30x30 initiative.

Awards

Value

Excellence Award - Junior - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 000