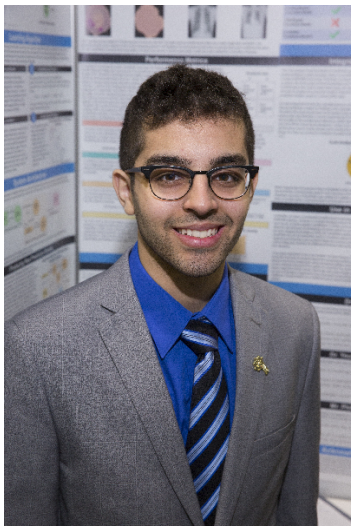
CWSF 2019 - Fredericton, New Brunswick



Jacob Meleka

HealthNet: Scalable Production of Prediction Models for Automated Diagnosis

Challenge: Innovation
Category: Senior
Region: Bay Area
City: Brantford, ON
School: North Park Collegiate & Vocational
Abstract: I created HealthNet, a technology that can integrate with electronic health record systems and automatically produce accurate disease prediction models based on historical patient data using dual-stream neural networks. Preliminary testing suggests these models can be used by health care practitioners to determine the probability of a patient having essentially any disease with an accuracy above 90%.

Biography

My name is Jacob Meleka and I am currently a grade 12 student at North Park Collegiate in Brantford, Ontario. I love to program and use technology to solve serious problems. I also have a passion for math and science, and am the captain and co-founder of the mathematics and science teams at my high school. Additionally, I play on the varsity basketball and tennis teams and am a member of Students' Council. Outside of school, I play competitive basketball for my city. I was inspired to create HealthNet after speaking with doctors about how there are no practical, technological tools to help them diagnose disease. Next year, I am pursuing a degree in software engineering or computer science at the University of Waterloo and hope to continue to improve this technology and eventually implement it within Canadian hospitals. For people interested in creating a project, do not believe just because you are young you cannot be innovative and create solutions that can help society. With resources on the internet, you can learn complex topics such as programming and machine learning and apply them to problems around you.