CWSF 2012 - Charlottetown, Prince Edward Island

Lucas Zeer-Wanklyn

Don't Sweat It: Measuring Biofeedback

Challenge: Health
Category: Senior
Region: Central Okanagan
City: Kelowna, BC
School: Kelowna Senior Secondary

Abstract: Using Java , I created an "Emotion Detector", that graphed/recorded fluctuations in skin conductivity of a user when reading questions and visualizing different images. The application also gave the user the ability to change the questions and images, in order to see if they triggered subtle emotional responses. The application was verified to work through testing.

Biography

I am 17 years old and a student in grade 12 at Kelowna Secondary School, in Kelowna, British Columbia, Canada. I have an interest in Neurosciences, Computers, and technology. I play the upright bass and bass guitar in jazz bands including a jazz combo. We regularly have paid gigs. For years now I have been passsionate in learning about technology and computers. In the last two years I became interested in the human brain.I now plan to study nanotechnology combined with neurosciences such that one day any knowledge gleaned can be shared and applied to Artificial Intelligence. My current project came to mind as I pondered human emotions, mapping of the brain, and physical responses, wondering if responses could be measured. After a great detail of research on Galvanic Skin Response, I wondered if I could build my own computer application for measuring emotion. My dream it to be accepted into the Nanotechnology Engineering program at the University of Waterloo, and later study at a prestigious university such as Caltech or MIT.

Awards	Value
Excellence Award - Senior - Bronze Medal Sponsor: Nuclear Waste Management Organization	$300
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	$2 300