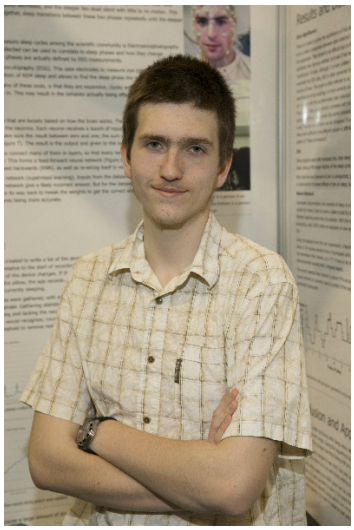
CWSF 2017 - Regina, Saskatchewan



Mike Roslikov

Sleep Analysis

Challenge: Innovation
Category: Intermediate
Region: Greater Vancouver
City: Coquitlam, BC
School: Inquiry Hub Secondary School

Abstract: There are many obstacles in current data collection and analysis methods of sleep. This approach offers a new way, using only a smartphone app that accesses the smartphone's accelerometer. A handful of algorithms allow to correlate the information from an accelerometer to sleep phases and their change throughout the night. Employing machine learning techniques allows for extra diagnostic capability derived only from the sleep data.

Biography

Mike Roslikov is a 14 year old high school student at Inquiry Hub Secondary, located in the Greater Vancouver region of Beautiful British Columbia. Exploring science is his largest interest. With the resources readily available his interests usually focus around computer science. However with recent developments, scientific resources became more available, slowly shifting Mike's interests to envelope other fields of science as well. He enjoys many challenges, such as the SSEP program for which he designed a microbiology experiment to be performed on the ISS in microgravity. Mike hopes to study in a university, going into academics to research artificial intelligence and neural networks.