

## CWSF 2015 - Fredericton, New Brunswick



### Sascha Bodak

#### Predictive Perceptron Networks: Temperature Forecasting Using Machine Learning

**Challenge:** Information

**Category:** Senior

**Region:** Thames Valley

**City:** London, ON

**School:** A.B. Lucas S.S.

**Abstract:** Temperature is a highly chaotic and strongly emergent naturally occurring pattern. For centuries, scientists have been interested in studying and determining the relationship between measurable climactic conditions and future temperatures. This project attempts to create a model that can accurately and efficiently map temperature as a function of these climactic conditions in order to forecast temperature at a given point in the future.

#### Biography

My name is Sascha Bodak. My hobbies include reading, programming and playing chess. In the future would like to become a chemical engineer. I also enjoy camping and canoeing and spend the majority of my summers in Ontario's wilderness. My love of music, neurology and computer science inspired this science fair project. If I am able to continue with my study I would like to measure hormone levels in the blood streams of my participants in order to gain quantitative results.

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
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	\$2 000