

# CWSF 2016 - Montreal, Quebec



## Sascha Bodak

### Generating Musical Accompaniment Using Machine Learning

**Challenge:** Information

**Category:** Senior

**Region:** Thames Valley

**City:** London, ON

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

**Abstract:** From image recognition to natural language processing to genetic research, learning algorithms that are capable of using past information to model patterns have become a major part of modern life whether the average person realizes it or not. In this project, a novel deep learning algorithm that is capable of producing a sophisticated musical accompaniment to a given melody is presented.

#### Biography

My name is Sascha Bodak. In the future I hope to become a Software Engineer. My hobbies include reading, programming, and writing music. My love for music and computer science inspired this science fair project. I would urge anyone interested in starting their own project to find a great mentor who can guide you through the important steps required to bring your idea to life.

#### Awards

#### Value

|  |                 |
|--|-----------------|
| Challenge Award - Information - Senior<br>Sponsor: Youth Science Canada  |                 |
| Excellence Award - Senior - Gold Medal<br>Sponsor: Youth Science Canada  | \$250           |
| Dalhousie University Faculty of Science Entrance Scholarship<br>Senior Gold Medallist - \$5000 Entrance Scholarship<br>Sponsor: Dalhousie University, Faculty of Science | \$5 000         |
| UBC Science (Vancouver) Entrance Award<br>Senior Gold Medallist - \$4000 Entrance Scholarship<br>Sponsor: The University of British Columbia (Vancouver)                 | \$4 000         |
| University of Manitoba Entrance Scholarship<br>Senior Gold Medallist - \$5000 Entrance Scholarship<br>Sponsor: University of Manitoba                                    | \$5 000         |
| University of Ottawa Entrance Scholarship<br>Senior Gold Medallist - \$4,000 Entrance Scholarship<br>Sponsor: University of Ottawa                                       | \$4 000         |
| Western University Scholarship<br>Gold Medallist - \$4000 Entrance Scholarship<br>Sponsor: Western University  | \$4 000         |
| <b>Total</b>   | <b>\$22 250</b> |