

# Gavin G. Ovsak

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Website: <http://www.WorkbyGavin.com>

## **Education:**

Eden Prairie High School, Eden Prairie MN

**GPA:** 3.95/4.0 scale, Status: Senior

### **Advanced Placement and CIS Courses (Score):**

AP Biology (4), AP Physics B (5), AP Physics C Mechanics (5), AP Calculus AB (5), AP Calculus BC (5), AP Java A (5), AP Java AB (5)

College in the Schools (CIS) credit earned for French Levels 5 and 6

### **College Admission Test Scores:**

PSAT – 229/240, Candidate for National Merit Scholarship Competition

SAT – Overall: 2240/2400 – Reading: 730, Writing: 710, Math: 800

Math Level 2 Subject Test: 800, Physics Subject Test: 800

ACT – Overall: 34/36 – English: 35, Reading: 30, Science: 36, Math: 36

Attending Duke University 2011-2015

Major: Biomedical Engineering and Computer Science

Minor: Markets & Management

Angier B. Duke Merit Scholarship (100%)

American Red Cross Lifeguard Certified—June 2010

## **Recognitions/Awards:**

### **National Merit Finalist Scholar**

- Awarded \$2,500 Scholarship

### **Advanced Placement Scholar with Distinction**

### **Elks National Foundation 2011 Most Valuable Student Scholarship**

- National Finalist
- Awarded \$4,000 Scholarship from National Elks Organization
- Awarded \$1,000 Scholarship from Local Hopkins Elks Lodge 2221

### **Coca-Cola Scholarship Regional Finalist**

- 1 of 250 recipients from across the United States
- Ceremony held April 2011 in Atlanta, GA
- Awarded \$10,000 Scholarship

### **TEDxYouth@TC Event Guest Speaker - <http://www.tedxtc.com/youth/index.html>**

- 1 of 3 students to present in the MN Science Museum Discovery Auditorium on Nov 20 2010.
- Recorded speech to be hosted in the TED.com Gallery

### **Davidson Institute**

#### **2010 Davidson Fellows Scholarship <http://www.davidsongifted.org/fellows>**

- 1 of 20 recipients from across the United States
- Awarded in recognition for a prodigious achievement in the field of Technology and a positive impact on society.
- Ceremony held September 2010 at Smithsonian Institute in Washington, D.C.
- Awarded \$10,000 Scholarship

### **National Museum of Education**

#### **2010 Inductee into the National Gallery of America's Young Inventors <http://nmoe.org/>**

- 1 of 5 student inductees from across the United States
- Received the Thomas A. Edison Innovation Award
- Ceremony held October 2010 at the National Museum of Education in Akron, Ohio

### **Science Fairs:**

#### **Google Global Online Science Fair Semi-Finalist-** (Finalist status TBA May 23, 2011)

- Project submission can be viewed at: <http://goo.gl/UdVRy>

#### **International ISEF Competition <http://www.societyforscience.org/isef/grandawards> (May 2011):**

- Fourth Place Grand Award at the International Science and Engineering Fair in the Energy and Transportation category and \$500
- National Collegiate Inventors and Innovators Alliance Special Award and \$1,000

#### **Minnesota State Science Fair Competition (2011):**

- Second Place Grand Award
- Wolfram Research Mathematica Software Award, project that best utilizes math wins a license for the computation, modeling, simulation, visualization, development, documentation, and deployment

- National Youth Science Camp- selected as 1 of 2 state delegates for MN, recognizing promising scientific leaders from the state who show academic proficiency, leadership and community involvement <http://www.nysc.org/w/2011.html>

**Twin Cities Regional Competition (Feb. 2011):**

- Intel International Science and Engineering Fair (ISEF) West Suburban Finalist (awarded an opportunity to present at Intel's international competition in May 2011)
- Medtronic Foundation Corporate Sponsor Award - sole recipient
- 3M Renewable Energy Award (\$100) - sole recipient
- American Council of Engineering Companies of Minnesota Honor Award
- United States Army – Award for Exemplary Research
- United States Navy – Office of Naval Research Medal and \$50
- Top ribbon signifying qualification to the Minnesota State Science Fair Competition in March
- Research Paper Competition Finalist signifying qualification to the North Central Tri-State Junior Science & Humanities Symposium in March

**International ISEF Competition [www.isef2010sanjose.org](http://www.isef2010sanjose.org) (May 2010):**

- Fourth Place Grand Award at the International Science and Engineering Fair in the Electrical and Mechanical Engineering category and \$500
- Synaptics Inc. Third Place Award and \$250
- International Council on Systems Engineering Honorable Mention

**Minnesota State Science Fair Competition (Mar. 2010):**

- First Place Grand Award
- Seagate Outstanding Achievement for First Year Presenter award
- Intel Excellence in Computer Science Award and \$200
- St. Mary's University Scholarship in Computer Science and \$2,000 annual scholarship to attend St. Mary's University up to \$8,000

**Twin Cities Regional Competition (Feb. 2010):**

- Awarded an opportunity to attend Intel's International Science and Engineering Fair in San Jose, California –May 2010.
- National Society of Professional Engineers – Innovative Engineering Award
- Medtronic Corporate Sponsor Award
- United States Air Force – Outstanding Project Award
- United States Army – Award for Exemplary Research
- United States Navy – Naval Science Award and gift certificate
- Yale University's Science and Engineering Association Recognition for Most Outstanding 11th Grade Exhibit
- A top ribbon and medal signifying qualification to the Minnesota State Science Fair Competition in March 2010

## **Junior Science and Humanities Symposium (JSHS):**

### **National**

- Presented research at the National Junior Science and Humanities Symposium in Bethesda, MD, April 2010 sponsored by the US Department of Defense

### **Tri-State**

- Awarded First Place Finalist and selected to represent the North Central Tri-State Area of Minnesota, North Dakota & South Dakota at the National JSHS in Bethesda, MD in April/May 2010 and received \$2,000 scholarship.

### **Regional**

- Research Paper Competition Finalist signifying qualification to the North Central Tri-State Junior Science & Humanities Symposium in March 2010

## **FIRST (For Inspiration and Recognition of Science and Technology)**

### **FRC – FIRST Robotics Competition – Grades 9-12**

- Co- Founder of the successful FIRST Robotics Competition Team 2502 at Eden Prairie High School as a freshman--which has grown to 40 members in size.
- Has led as the Programming and Marketing Captain
- Best Robotics Website 2010
- General Motors Excellent Design Award 2009

### **FLL – FIRST Lego League – Grades 2-9**

- Team won the Minnesota State Championship Director's Cup three times and received team recognition at the 2007 International FLL Invitational Competition with representatives from over 30 countries held in Atlanta, GA.
- I also received numerous individual FLL awards over the years for Outstanding Programming of my team robot.

## **Current Projects/Inventions:**

### **Fully-Submersible Water Turbine**

A model water turbine independently developed by me for the Science Fair competitions to let small businesses, homes, and developing countries use the hydro-power resources they have cost-effectively. A scale model was built and tested, and the project board for the Google Global Science Fair can be found here [sites.google.com/site/fullysubmersiblewaterturbine](http://sites.google.com/site/fullysubmersiblewaterturbine)

### **CHAD (Circuit Head Accessibility Device)**

An assistive technology device invented for the Science Fair competitions and to help individuals with disabilities and limited control of their arm muscles to be able to control computers with their heads. This invention is in process of production and distribution.

### **RoomGuide**

An inner-building mapping software designed as a directional tool. This program has been successfully implemented in one three-level building for visitor aid. More applications are being pursued with hospitals, building campuses, and schools.

**MathDroid**

An application for the Android marketplace, this program teaches elementary students math at their level with adaptive software that suits their knowledge base and improves it in a fun goal-based environment.

**ToDo Plus+**

ToDo Plus is a goal manager application for the Android marketplace. With deadline organization and a simplified list that hides steps that you are not ready to do yet, To-Do Plus+ shows you what you really need to focus on.

**CoursePlanner**

A software package that was developed for my high school, this software provides a testing ground for students to plan their four-year course registration with handy suggestions and interactive course catalogs.

**Volunteer Activities:**

- Mentor at the Courage Center Rehabilitation facility in Golden Valley, MN – 2010
- Programming Mentor for four FIRST Lego League (FLL) Division 1 and 2 robotics teams
- National Honor Society member since 2009
- Science Teacher Assistant in Biology, Physics, and Chemistry
- Hopkins-Minnetonka Park and Recreation Service Activities and Day Camp Volunteer
- Volunteer tutor for Math and PSAT prep at EPHS

**Hobbies and Interests:**

- EPHS Comedy Sportz Team Member since 2007 – A Competitive Improvisational Comedy Team that has won the High School Improv League Championship in 2007 and 2008.
- FIRST High School Robotics – Co-Founder in 2007 of Team 2502 and Lead Captain (Programming and Marketing)
- Sports – Cold Front Ultimate Frisbee, Waterskiing/Wakeboarding, Snowmobiling & Intramural Quidditch
- Travel Abroad – France 2009, Italy 2008 & 2006, Japan 2007, and England 2006.

**References:**

Mr. Conn McCartan – Eden Prairie High School Principal, (952) 975-8011, cmccartan@edenpr.org

Ms. Bridget Johnson – EPHS Computer Science Teacher, 952-975-7554, bridgetj@edenpr.org

Mr. Michael Maas – EPHS Physics Teacher, (612) 708-8952, mmaas@edenpr.org

Ms. Princesa Van Buren-Hansen – Science Fair Advisor, (612) 232-1721, princesa.vanburen@state.mn.us

# Supplemental Links

## **Water Turbine Press Coverage**

Eden Prairie Sun [http://www.mnsun.com/articles/2011/03/16/eden\\_prairie/news/fw17fairwinner.txt](http://www.mnsun.com/articles/2011/03/16/eden_prairie/news/fw17fairwinner.txt)

## **CHAD Project Press Coverage:**

Minneapolis Star Tribune [www.startribune.com/local/92559229.html](http://www.startribune.com/local/92559229.html)

Eden Prairie News [www.edenprairienews.com/news/city-news/ephs-student-making-waves-computer-interface-project-107](http://www.edenprairienews.com/news/city-news/ephs-student-making-waves-computer-interface-project-107)

Tootlee: Stories of Amazing Kids [tootlee.com/category/stories-of-amazing-kids/technology/](http://tootlee.com/category/stories-of-amazing-kids/technology/)

CNN Article [www.cnn.com/2010/HEALTH/10/22/motivation.kids/index.html](http://www.cnn.com/2010/HEALTH/10/22/motivation.kids/index.html)

National Gallery for America's Young Inventors [www.nmoe.org\\_flyer.pdf](http://www.nmoe.org_flyer.pdf)

## **Interview by MN Daily (University of MN Newspaper):**

MN Daily - [www.mndaily.com/2010/09/15/u-student-invents-hands-free-mouse](http://www.mndaily.com/2010/09/15/u-student-invents-hands-free-mouse)

*Article later reprinted by the following papers:*

[MPR](#), [BringMeTheNews](#), [Marshall Independant](#), [Eyewitness News 9](#), [ESPN Twin Cities](#), [USA Today](#), [TimesUnion](#), [wwwTwinCities.com](#), [Forbes.com](#), [WCCO](#)

## **RoomGuide Coverage**

StudentGenius [studentgenius.com/wordpress/?p=391](http://studentgenius.com/wordpress/?p=391)

## **Davidson Fellow Coverage:**

Davidson Institute Release - [www.davidsongifted.org/Gavin Ovsak.pdf](http://www.davidsongifted.org/Gavin_Ovsak.pdf)

Lakeshore Weekly News - [ewatch.prnewswire.com/908815884](http://ewatch.prnewswire.com/908815884)

## **Robotics Press Coverage:**

Eden Prairie News:

<http://www.edenprairienews.com/news/schools/first-things-first-lets-build-robot-4600>

<http://www.edenprairienews.com/news/activities/ephs-robotics-team-shoots-moon-its-second-year-102>

<http://www.edenprairienews.com/news/activities/interest-first-robotics-continues-grow-eden-prairie-102>

[http://photos.edenprairienews.com/Other/Robot-boot-camp/11348768\\_zMMoV#797044841\\_j33ab](http://photos.edenprairienews.com/Other/Robot-boot-camp/11348768_zMMoV#797044841_j33ab)

Minnesota Sun Newspapers: [www.mnsun.com/articles/2007/04/26/education/hs26hopbriefs.txt](http://www.mnsun.com/articles/2007/04/26/education/hs26hopbriefs.txt)

## **Comedy Improvisational Team Press Coverage:**

Eden Prairie News: <http://www.edenprairienews.com/news/activities/improv-action-4594>

Eden Prairie School News: <http://www.edenpr.k12.mn.us/ephs/news>