



Davidson Fellow

Gavin Ovsak

\$10,000 Scholarship Recipient



Personal Info

Age: 16

Hopkins, Minnesota

School, College and Career Plans

A rising senior at Eden Prairie High School, Gavin plans to major in biomedical engineering. He hopes to pursue a career in which he can integrate leading edge science with direct community contact.

Davidson Fellows Submission (Technology)

In his project, "*The Invention of a Highly Efficient and Cost Effective Alternative Computer Interface Using Embedded Circuitry*," Gavin designed a device to allow disabled individuals more efficient access to computers. His device, known as the CHAD, Circuit Head Accessibility Device, is a circuit board integrated onto a baseball hat to replace the functions of a computer mouse through head movements and a bite sensor. Gavin's work is less expensive, more efficient, and uses fewer complex software interfaces than are currently available in the assistive technology market, equalizing access to the social, occupational and global significance of the Internet.

Biography

In elementary school, Gavin skipped third grade and was subject accelerated multiple times in science and math. In high school he was advanced in several other subjects including French and Spanish. As a senior this year, Gavin will attend the University of Minnesota-Twin Cities Campus full time through the Post Secondary Enrollment Options program.

Gavin feels that scientists have a duty to actively try to help the world with their research. Some of his biggest inspirations for inventions have come from his experiences with the FIRST Robotics program and technological entrepreneurs. Gavin undertook his Davidson Fellows project independently at home and received help from Internet hobbyist forums. His project took him over 200 hours to build and he received valuable feedback from his mentor.

Gavin enjoys participating in FIRST Robotics competitions and mentors younger student teams to help encourage their continued involvement. He also has an entrepreneurial spirit and has many projects in various stages of production. Gavin is also a member of a competitive comedic improvisation team and has appeared on a Hollywood game show. He is an avid reader, traveler, and plays Ultimate Frisbee and intramural Quidditch.

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cont.

Honors/Awards

- 2010 Davidson Fellow
- 2010 Intel International Science and Engineering Fair Electrical and Mechanical Engineering Fourth Place Grand Award
- National Merit Scholar Finalist
- 2010 Minnesota State Science Fair First Place Grand Award
- 2010 National Society of Professional Engineers Innovative Engineering Award
- 2010 Medtronic Corporate Sponsor Award
- 2010 United States Air Force Outstanding Project Award
- 2010 United States Army Award for Exemplary Research
- 2010 United States Navy Naval Science Award
- 2010 Yale University's Science and Engineering Association Recognition for Most Outstanding 11th Grade Exhibit
- 2010 National Junior Science and Humanities Symposium Research Presenter
- 2010 Synaptics Inc. Third Place Award
- 2010 International Council on Systems Engineering (INCOSE) Honorable Mention
- 2010 Advanced Placement Scholar with Distinction
- 2010-2009 National Honor Society Member

Community Activities

Gavin volunteers at the Courage Center Rehabilitation facility and the Hopkins-Minnetonka Park and Recreation Services. He has also been the programming mentor for four FIRST Lego League Divisions 1 and 2 robotics teams. He also serves as a science teacher assistant in biology, physics and chemistry.

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