



Ryan Patterson

Intel Science Talent Search Winner 2002

Ryan Patterson turned a life-long fascination with electronics into a winning streak that gained him more than \$400,000 in scholarship money, features in the likes of *GQ* magazine, and recognition for one of the top inventions of 2002 by *Time* magazine. Winning the Intel STS was “outrageously rewarding. Besides the scholarships, which make life through college thousands of times easier, the press recognition has been amazing. People still call to do interviews.”

Patterson’s invention is a glove that translates American Sign Language into written words that appear on a portable computer screen. The device is a golf glove fitted with a tiny circuit board and ten sensors. “I had seen some people at a restaurant signing and they had a human interpreter translating their signs and telling the person what they wanted at the restaurant.” He realized an electronic translator could make it much easier for them to communicate. Patterson received a provisional patent on the device in March 2001 and applied for a full patent a year later.

Last year, as part of its science education program, the National Institute on Deafness and Other Communication Disorders invited Patterson to Washington, D.C. where he spent the day demonstrating his invention; trading ideas with scientists, administrators and students participating in a research training program; and touring the facilities to learn about other areas of human communication research. "Of all the projects I've done so far, this has been the most interesting because of the interface between electronics and people," said Patterson. "If I can make an innovative device that could help people out – particularly people with disabilities – I'll feel as though I've made a difference."

Over the summer Patterson attended the Korea-USA Science and Engineering Summer Camp in Seoul, South Korea along with 20 other U.S. students sponsored by the American Association for the Advancement of Science.

Today Patterson is a sophomore at the University of Colorado majoring in electrical and computer engineering. But in addition to studying calculus and circuits, he also studies American Sign Language. Beyond that he’s doing lab work on an electrical engineering project for the Western Colorado Math & Science Center, run by his longtime mentor, John McConnell. “The project that I’m working with for the Center is a design that will help students understand the interaction between electrons in the sky and on the earth during a lightning storm. The project uses about 80 circuit boards and 17 microprocessors.”

Patterson is optimistic, though not specific, about what his future holds. “I’ll definitely be doing more innovative researching and inventing.” And while it would be great to do something worthy of another prestigious award, Patterson admits his higher priority “is to be able to develop products to really help people.”