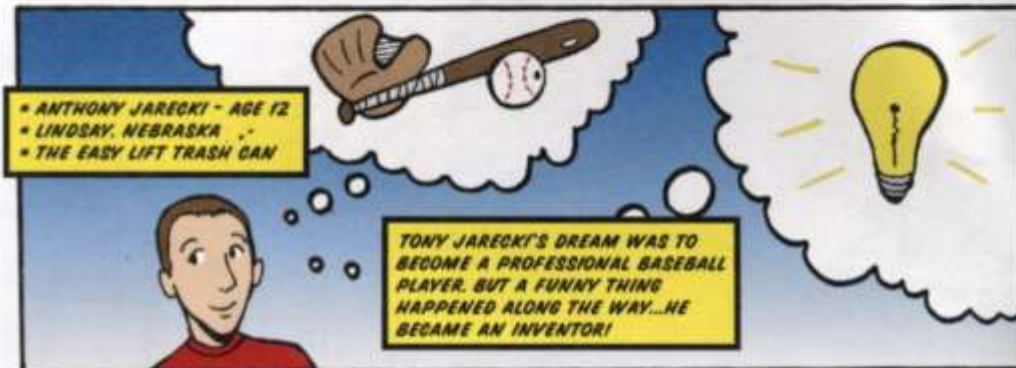


# Anthony Jarecki



GABE

KLAPMAN

• PETER LEE  
• AGE 17  
• CARMEL, CALIFORNIA

• GABE KLAPMAN  
• AGE 17  
• SANTA CRUZ, CALIFORNIA

PETER

LEE



GABE KLAPMAN AND PETER LEE FIRST MET IN HIGH SCHOOL CHEMISTRY CLASS, AND SOON BECAME FRIENDS AND CO INVENTORS. BUT DON'T THINK THAT THIS MEANS GABE AND PETER ARE MUCH ALIKE.

FOR INSTANCE, PETER ENJOYS CROSS-COUNTRY AND SOCCER, PLAYS CELLO IN A STRING ENSEMBLE, AND IS STUDENT BODY PRESIDENT. GABE, ON THE OTHER HAND, IS AN AVID TENNIS PLAYER AND SKIER, AND IS LEAD SINGER IN THE ROCK BAND "THE BLEEDING STRINGS".



BUT GABE AND PETER DO SHARE A MUTUAL LOVE OF SCIENCE AND INVENTION - SKILLS THAT THEY CHOSE TO COMBINE IN ORDER TO ASSIST THE HEARING-IMPAIRED COMMUNITY.



HEARING AID USERS OFTEN COMPLAIN THAT IT IS DIFFICULT TO DISTINGUISH INDIVIDUAL VOICES IN A CROWDED ROOM SINCE ALL SOUNDS GET AMPLIFIED EQUALLY. PETER AND GABE'S INVENTION, THE BIG ARRAY SYSTEM, USES A SERIES OF SMALL MICROPHONES THAT CAN BE WORN ON CLOTHING, OR CARRIED IN A BRIEFCASE, TO AMPLIFY SOUNDS ONLY FROM THE DIRECTION THE USER IS FACING.



THIS DEVICE IS MUCH CHEAPER, MORE RELIABLE, AND LESS FINICKY THAN ANYTHING PRESENTLY ON THE MARKET.



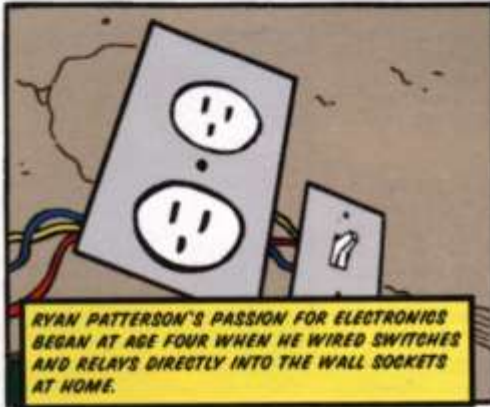
GABE AND PETER WERE THE 2001 WESTERN REGIONAL TEAM FINALISTS IN THE SIEMENS WESTINGHOUSE COMPETITION IN MATH, SCIENCE, AND TECHNOLOGY.



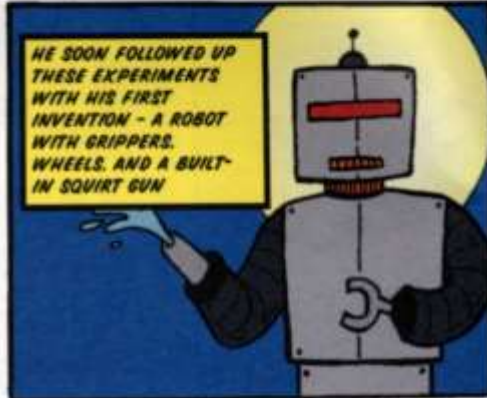
PETER PLANS TO STUDY SCIENCE & ENGINEERING IN COLLEGE, WHILE GABE PLANS TO STUDY NEUROSCIENCE.

# Ryan Patterson

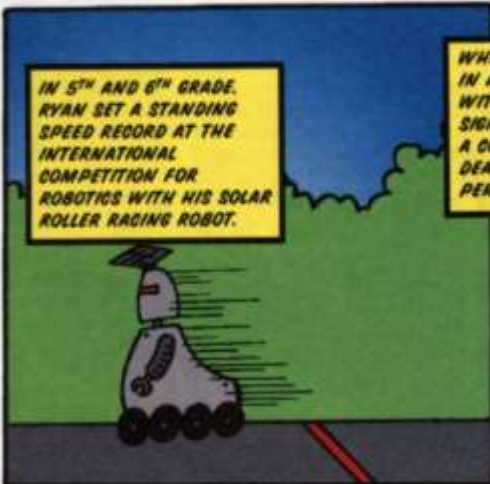
- RYAN PATTERSON
- AGE 18
- GRAND JUNCTION, COLORADO
- THE AMERICAN SIGN LANGUAGE TRANSLATOR



RYAN PATTERSON'S PASSION FOR ELECTRONICS BEGAN AT AGE FOUR WHEN HE WIRED SWITCHES AND RELAYS DIRECTLY INTO THE WALL SOCKETS AT HOME.



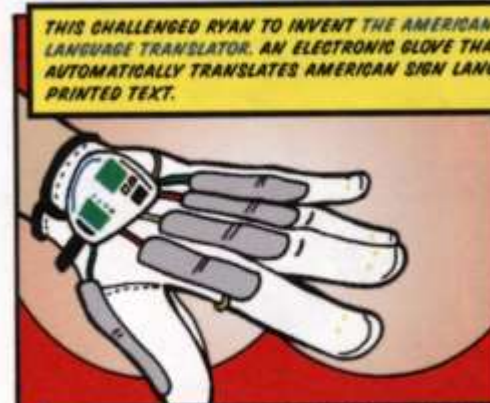
HE SOON FOLLOWED UP THESE EXPERIMENTS WITH HIS FIRST INVENTION - A ROBOT WITH GRIPPERS, WHEELS, AND A BUILT-IN SQUIRT GUN



IN 5<sup>TH</sup> AND 6<sup>TH</sup> GRADE, RYAN SET A STANDING SPEED RECORD AT THE INTERNATIONAL COMPETITION FOR ROBOTICS WITH HIS SOLAR ROLLER RACING ROBOT.



WHEN HE WAS 16, RYAN WAS IN A RESTAURANT WHERE HE WITNESSED A PERSON USING SIGN LANGUAGE TO TRANSLATE A CONVERSATION BETWEEN A DEAF PERSON AND A HEARING PERSON.



THIS CHALLENGED RYAN TO INVENT THE AMERICAN SIGN LANGUAGE TRANSLATOR, AN ELECTRONIC GLOVE THAT AUTOMATICALLY TRANSLATES AMERICAN SIGN LANGUAGE INTO PRINTED TEXT.



HIS INVENTION RECEIVED TOP HONORS AS THE 2001 NATIONAL INDIVIDUAL WINNER OF THE SIEMENS WESTINGHOUSE COMPETITION IN MATH, SCIENCE, & TECHNOLOGY, 1ST PLACE AT THE 2001 INTEL SCIENCE & ENGINEERING FAIR, 1ST PLACE AT THE 2002 INTEL SCIENCE TALENT SEARCH, AND HAS RECEIVED A US PATENT. RYAN WILL ATTEND COLORADO UNIVERSITY AT BOULDER WHERE HE WILL STUDY ELECTRICAL AND COMPUTER ENGINEERING.

# Ezra

- EZRA RAPOPORT - AGE 18
- NEW YORK, NEW YORK
- SPEECH COMPRESSION ENGINE BASED ON PRINCIPAL COMPONENT ANALYSIS

# Rapoport



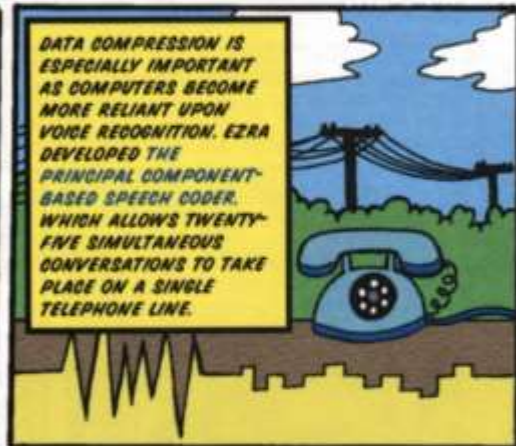
EVER SINCE HE TAUGHT HIMSELF TO READ AT AGE FOUR, EZRA RAPOPORT HAS BEEN PUTTING HIS LEARNING TO GOOD USE.



WHEN HE WAS SIX, HE WAS REPAIRING RADIOS. AND IN 5<sup>TH</sup> GRADE, EZRA WON THE NEW YORK CITY SCIENCE FAIR WITH AN INVENTION THAT CONVERTED CARBON MONOXIDE INTO OXYGEN.



IN 10<sup>TH</sup> GRADE, EZRA SERVED AN INTERNSHIP AT THE ROCKEFELLER UNIVERSITY LABORATORY OF COMPUTATIONAL NEUROSCIENCE WHERE HE DEVELOPED A KEEN INTEREST IN DATA COMPRESSION.



DATA COMPRESSION IS ESPECIALLY IMPORTANT AS COMPUTERS BECOME MORE RELIANT UPON VOICE RECOGNITION. EZRA DEVELOPED THE PRINCIPAL COMPONENT-BASED SPEECH CODER, WHICH ALLOWS TWENTY-FIVE SIMULTANEOUS CONVERSATIONS TO TAKE PLACE ON A SINGLE TELEPHONE LINE.



EZRA'S SPEECH CODER WON THE 2001 NEUROSCIENCE CREATIVITY PRIZE, AND WAS A FINALIST AT THE 2002 INTEL SCIENCE TALENT SEARCH.

EZRA HAS JUST COMPLETED AN INTERNSHIP AT KERZWEIL TECHNOLOGIES DEVELOPING A CONVERSATIONAL ENGINE FOR AN ARTIFICIAL INTELLIGENCE ENVIRONMENT.



EZRA WILL MAJOR IN ELECTRICAL ENGINEERING AND COMPUTER SCIENCE AT HARVARD.

# Harris Sokoloff

- HARRIS SOKOLOFF
- AGE 18
- DEMAREST, NEW JERSEY
- HEADPHONE EMERGENCY ALERT DEFENSE SYSTEM (HEADS UP!)

LIKE SO MANY YOUNG INVENTORS, HARRIS SOKOLOFF WAS MORE INTERESTED IN HIS TOYS' INTERIORS THAN WITH THEIR EXTERIORS. THUS, EVERYTHING HE GOT HIS HANDS ON WAS SOON IN PIECES. ONCE HE EVEN TOOK APART THE NEW THERMOSTAT IN HIS HOUSE JUST TO SEE HOW IT WORKED. FORTUNATELY, HE SUCCESSFULLY REASSEMBLED IT BEFORE HIS PARENTS BEGAN TO "HEAT UP".

HARRIS'S MECHANICAL SKILLS WOULD PROVE USEFUL IN 9<sup>TH</sup> GRADE WHEN HIS TEACHER GAVE THE CLASS AN INVENTION ASSIGNMENT.

DUE FRIDAY:  
INVENTION  
IDEAS

...BUT HE WONDERED WHAT HE SHOULD INVENT.

WHILE RIDING HIS BICYCLE HOME FROM SCHOOL, HARRIS WAS ALMOST HIT BY A CAR. THE CAR HAD SOUNDED ITS HORN, BUT HE DIDN'T HEAR IT BECAUSE HE WAS LISTENING TO MUSIC ON HIS HEADPHONES.

THIS CLOSE CALL WAS HARRIS'S INSPIRATION FOR THE "H.E.A.D.S. UP". THIS SMALL DEVICE PLAYS A PRE-RECORDED WARNING INTO A MUSIC-LISTENER'S HEADPHONES IF A HORN OR SIREN IS SOUNDED IN THE VICINITY.

THE H.E.A.D.S. UP WAS AWARDED 5<sup>TH</sup> PLACE IN THE 2000 DURACELL/NSTA INVENTION CHALLENGE, WAS A FINALIST IN THE 2001 LEMELSON-M.I.T. INVENTION CONTEST, AND IS NOW BEING PATENTED.

AFTER GRADUATION, HARRIS PLANS TO STUDY ENGINEERING OR BUSINESS IN COLLEGE.

# Lisa Marie WRIGHT

- LISA MARIE WRIGHT
- AGE 15
- COLUMBUS, OHIO
- THE AUTO-OFF CANDLE

