

Davidson Fellow
Arjun Aggarwal
\$25,000 Scholarship Recipient



Personal Info

Age: 16
Columbia, South Carolina

School, College and Career Plans

A rising senior at Lexington High School, Arjun plans to major in a medical related field of study in college and become a doctor.

Davidson Fellows Submission: Technology

Arjun's project is, "GNut-III an A.I.R.V.I.S. (Anthropometric Interactive Robot With Vision, Intelligence and Speech)." He found the lack of an economically efficient and functional human robot has prohibited researchers from continuing to expand the field of robotics. To counter this, the GNut-III is economically efficient and

functional for testing robotic algorithms. In addition to the GNut-III, Arjun has outlined a scattered open source community to work on a standardized platform that could transform robotics in the same way it has transformed computing.

Biography

Arjun has been enrolled in public school for his entire academic career and has taken many Advanced Placement classes. He has participated in science fairs and academic competitions since the fifth grade. Ever since he can remember, Arjun has been curious about technology and been taking things apart. This curiosity did not bode well for his family computer but taught him a great deal about technology and gave him a thirst to explore more.

Arjun believes strongly that humanoid robots are crucial for solving some of our biggest problems. Through his research he found that little new work was being done in the field, largely due to the prohibitive cost, between \$20,000-\$50,000. Arjun was able to build the GNut-III for \$2786. Every aspect of the GNut-III, from construction to the programming of its functions, was done solely by Arjun at his home, completely un-mentored. He feels the biggest thing he learned from undertaking this complex and multifaceted project, is perseverance and to keep pushing oneself through problems.

Outside of building robots, Boy Scouts has been a major influence in Arjun's life, teaching him leadership skills he will carry with him the rest of his life. He plays soccer and swims competitively for his school; he also enjoys skiing, water sports and rock climbing. Arjun enjoys reading and watching movies in his free time.

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(cont.)

- 2011 Davidson Fellow
- 2011 Intel International Science and Engineering Fair (ISEF) Fourth Place Electrical and Mechanical Engineering Category
- 2011 European Organization for Nuclear Research all expense paid trip to tour CERN
- 2011 I-SWEEP International Science Fair Silver Medal
- 2011, 2010 Central South Carolina Region II Grand Award Winner
- 2011, 2010 Junior Science & Humanities Symposium Best in Category, Outstanding Research
- 2011, 2010, 2009 South Carolina Junior Academy of Science President, Vice President, Secretary
- 2011 Future Business Leaders of America Vice President
- 2011 Lexington Medical Center Student Intern
- 2011 American Junior Academy of Science Induction as Lifetime Fellow with Full Honors for Outstanding Achievement at the National Level in Scientific Research and Leadership
- 2010 Intel International Science and Engineering Fair (ISEF) Fourth Place Electrical and Mechanical Engineering Category
- 2010, 2009 I-SWEEP International Science Fair Gold Medal, Bronze Medal
- 2008 Carolina Master Scholar Diploma awarded by the University of South Carolina

Community Activities

Arjun is the co-founder of Ekal Vidyalaya Junior Chapter of South Carolina. Ekal Vidyalaya is a nonprofit organization dedicated to bringing education to the under privileged children in rural India. SC Ekal Chapter has raised funds to sponsor more than 30 schools. He is also the Youth Leader at Balagokulam Sunday School at The Hindu Temple and Cultural Center of SC. Arjun has served over 400 hours of community service for several organizations. He is an Eagle Scout and is a member of the Order of the Arrow, Scouting's National Honor Society.