SAN JOSE STUDENT AWARDED FOR CREATING WEARABLE DEVICE THAT DETECTS AUTISTIC EPISODES
Raghav Ganesh to be Awarded $25,000 as a 2016 Davidson Fellow

Reno, Nev. – The Davidson Institute of Talent Development has announced the 2016 Davidson Fellows. Among the honorees is 14-year-old Raghav Ganesh of San Jose, Calif. Ganesh won a $25,000 Davidson Fellows Scholarship for his project, Serene: An Assistive Biomedical System for Autism Spectrum Disorder. He is one of only 20 students from across the country to receive this honor.

“I am humbled and honored to be named a Davidson Fellow, and receive recognition for my project,” said Ganesh. “I feel inspired to continue my research and am happy that I can share my project with more people.”

Ganesh developed a system to predict and prevent autistic “meltdowns” using a mobile application, wearable device, and desktop and mobile applications. The wearable device has sensors that measure and interpret the stress level of the wearer, and will signal the caregiver on their smart phone when symptoms of a meltdown are detected. The device also initiates a therapeutic response to calm the user when symptoms are present. The desktop application tracks the device wearer’s stress levels over time and creates thresholds for all the sensors in the device. This technology could enable autistic individuals to be more independent without requiring a caregiver to remain nearby with the anxiety that a meltdown may occur at any moment.

Ganesh is a self-taught computer programmer. He often tinkers with electronics and writes applications, and enjoys learning how things work first-hand. In his spare time, Ganesh likes playing soccer, swimming, and playing the violin.

At 14-years-old, Ganesh is the youngest Davidson Fellow to be honored this year. He will enter Lynbrook High School as a freshman this fall. He aspires to study biomedical engineering and wants to become an entrepreneur.

“We are thrilled to recognize the 2016 Davidson Fellows not only for their incredible projects, but also for the journey they forged to reach this point,” said Bob Davidson, founder of the Davidson Institute. “Every year I am amazed by the depth of the Fellows’ accomplishments. Through encouragement and recognition, the Davidson Institute for Talent Development anticipates that gifted students like these will be among the pioneers who will solve the world’s most vexing problems.”

The 2016 Davidson Fellows will be honored at a reception in Washington, D.C., on September 21.

The Davidson Fellows Scholarship program offers $50,000, $25,000 and $10,000 college scholarships to students 18 or younger, who have completed significant projects that have the potential to benefit society in the fields of science, technology, engineering, mathematics, literature and music. The Davidson Fellows Scholarship has provided more than $6.7 million in scholarship funds to 286 students since its inception in 2001, and has been named one of the most prestigious undergraduate scholarships by U.S. News & World Report. It is a program of the Davidson Institute for Talent Development, a national nonprofit organization headquartered in Reno, Nev. that supports profoundly gifted youth.
About the Davidson Institute

Founded by Bob Davidson in 1999, the Davidson Institute for Talent Development recognizes, nurtures and supports profoundly intelligent young people, and provides opportunities for them to develop their talents to make a positive difference. The Institute offers support through a number of programs and services, including the Davidson Fellows Scholarship and the Davidson Academy of Nevada. For more information about the 2016 Davidson Fellows, please visit www.DavidsonGifted.org.

2016 Davidson Fellow Laureates

$50,000 Scholarships

- Miss Meena Jagadeesan, 18, Naperville, Ill.; The Exchange Graphs of Weakly Separated Collections
- Mr. Christopher Lindsay, 17, Honolulu, Hawaii; Kahakai to Hohonukai: Environmental Studies of Marine Biota Using Underwater Time-Lapse Photography and Multiple Camera Arrays at Various Depths
- Miss Sriharshita Musunuri, 16, Mill Creek, Wash.; Application of Tetrahedrite and Magnesium Silicide in a Novel Thermoelectric Unicouple to Generate Electricity from Industrial Waste Heat
- Mr. Nicolas Poux, 17, Palo Alto, Calif.; Development of a High-Resolution Multi-color Fluorescent Reporter for Clonal Analysis

2016 Davidson Fellows

$25,000 Scholarships

- Mr. Michael Du, 17, Houston, Texas; Nifurtimox Limits Cell Proliferation in Glioblastoma Multiforme in Vitro
- Mr. Anurudh Ganesan, 16, Clarksburg, Md.; VAXXWAGON: An Innovative Eco-Friendly "No Ice, No Electric" Active Refrigeration System for Last-Leg Vaccine Transportation
- Mr. Raghav Ganesh, 14, San Jose, Calif.; Serene: An Assistive Biomedical System for Autism Spectrum Disorder
- Mr. Ellis Hamilton, 17, Fort Sam Houston, Texas; The Music in Me
- Miss Katherine Hudek, 17, Grafton, Mass.; Quacee: A New Quantum Programming Language for Specifying Quantum Computations
- Mr. Wyatt Pontius, 18, Sterling, Va.; Reinventing the Leaf: A Novel Biohybrid Photosynthetic System
- Miss Maya Varma, 18, Cupertino, Calif.; A Wireless Smartphone-Based System for Diagnosis of Pulmonary Illnesses
- Miss Jaelynn Walls, 17, Pearland, Texas; Humanity On-Screen: Engendering Positive Self-Perception and Political Activism in Persons With Marginalized Identities

$10,000 Scholarships

- Mr. Christopher Huh, 17, Germantown, Md.; History’s Lessons
- Miss Justine Izah, 17, Crown Point, Ind.; An Examination of Black Liberation, Stereotypes, Healthcare and Education Through the Eyes of a Black Woman
- Mr. Noah Lee, 16, Oakland, N.J.; Changing the World Begins With A Single Person Feeling Valued
- Miss Surabhi Mundada, 17, Olympia, Wash.; MyGlove: Assisting Hand Movements, Grip, and Tremor
- Miss Isabel Seguin, 18, Boston, Mass.; The Cycle of Uighur Discontent
- Miss Josephine Yu, 17, Potomac, Md.; Lattice and Continuum Models of Solitons and Vortices in Bilayer Graphene

High-resolution photos are available at www.DavidsonGifted.org.