DAVIDSON

Fellows

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Davidson Fellows are outstanding young people who demonstrate the development of their talents with a significant piece of work in one of the following submission categories:

Science
A prodigious work in a specific domain area of science, such as physics, biology, chemistry, engineering, earth science, space science, environmental science or medicine.

Technology
A prodigious work in a specific domain area of technology, such as artificial intelligence or computer programming.

Mathematics
A prodigious work in a specific domain area of mathematics, such as calculus, fractals or number theory.

Music
A prodigious work in the form of a portfolio that is representative of the applicant's talent as a composer, vocalist, classical instrumentalist or jazz instrumentalist.

Literature
A prodigious work in the form of a portfolio displaying a number of literary genres.

Philosophy
A prodigious work in the form of a portfolio exhibiting depth and breadth of knowledge concerning the study of philosophy, human thought and culture.

"Outside the Box"
A prodigious work that is a unique combination of science, technology, or mathematics with music, literature or philosophy.

Davidson Fellows are awarded scholarships of $50,000, $25,000 or $10,000 and are recognized for their achievements at a special awards reception in Washington, D.C.

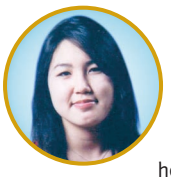
Davidson Fellows are encouraged to make a moral commitment to support others in the development of their talents by serving as role models and mentors to other profoundly intelligent young people.

2004 DAVIDSON FELLOW LAUREATES

$50,000 Scholarship Recipients

Nicole Ali (Science)
A 16-year-old young woman from St. Paul, Minnesota, Nicole Ali worked to develop a process to grow blood-forming stem cells outside the body. Nicole worked with cells from umbilical cord blood, instead of embryonic stem cells. By helping to curb the controversy associated with stem-cell research, Nicole's work with ex vivo expansion of hematopoietic cells could open the doors to more rigorous medical study that could help treat blood disorders, such as leukemia. Nicole also developed statistical software for more efficient analysis of data related to her research.

Jerry Guo (Technology)
A 16-year-old young man from Greer, South Carolina, Jerry Guo created a program to reduce unwanted e-mail or spam. Tackling one of today's biggest problems in the growing e-world, Jerry took a novel approach to spam filtering using an advanced Bayesian statistical method to develop a more robust, adaptive and accurate filter. Jerry's anti-spam program is more than 99 percent effective, far exceeding current systems which are not only inaccurate, but also delete legitimate e-mail in the process.



Rachel Naomi Kudo (Music)
A 17-year-old young woman from Northbrook, Illinois, Rachel Naomi Kudo has been playing concertos and concertinas on the piano since the age of four. A fluent speaker of Japanese, Korean, and English, Rachel realized early that her music had the ability to touch people in ways words could not. At the age of 16, she performed Tchaikovsky's Concerto No.1 with the Fort Worth Symphony Orchestra and made her debut with the Chicago Symphony Orchestra at Orchestra Hall playing Falla's *Nights in the Gardens of Spain*. She has performed for audiences in Belgium, Italy, Japan, Poland and Russia.

Shuyu Wang (Science)
A 17-year-old young woman from East Lansing, Michigan, Shuyu Wang discovered how DNA "bends" under certain circumstances to form RNA, an intermediary nucleic acid that is formed during the transcription of DNA to protein. Shuyu's findings have led scientists to further understand one of the biggest questions in biophysics: how simple molecules work to create a larger being. Her work provides a foundation for future research in nanotechnology and biocomputation.

2004 DAVIDSON FELLOWS

$25,000 Scholarship Recipients

Athena Adamopoulos (Music)

A 17-year-old young woman from New York City, Athena Adamopoulos' musical portfolio includes five orchestral compositions she created during the past two years. She began studying at Juilliard at the age of eight and, when she was 15, one of her compositions was performed by cellist Yo-Yo Ma and pianist Christopher O'Riley on National Public Radio's "From the Top." Athena has performed at the United Nations, Carnegie Hall and Lincoln Center. In addition to conducting her own compositions at Juilliard, she is currently composing the score for an independent film.

Boris Alexeev (Mathematics)

A 17-year-old young man from Athens, Georgia, Boris Alexeev proved a theorem related to the theory of automata, the mathematical basis for the field of pattern matching. Boris worked to determine the easiest way to test divisibility by a number using automata. By studying the minimization of of automata, programs can be simplified, thereby allowing them to use less memory and operate faster. Boris' findings can be utilized in a range of fields, such as DNA research and computer science.

Molly Carr (Music)

A 17-year-old young woman from Reno, Nevada, Molly Carr is a nationally recognized violist. At the age of 14, Molly became the youngest musician to become a member of the Reno Philharmonic Orchestra. She has performed at the Kennedy Center as well as on National Public Radio's "From the Top." She was also selected to participate in the highly-regarded music programs offered by Itzhak Perlman. Representing a new generation of string players, Molly shares the beauty and grace of the viola with the world.

Matthew Goldstein (Technology)

A 17-year-old young man from Delmar, New York, Matthew Goldstein invented DoorManBot, the e-version of an answering machine for AOL's Instant Messaging (AIM) users. Instant messaging is a popular form of communication, but it only works when users are online at the same time. Matthew designed a complex system of connections and databases that enables users to leave a secure message for someone who is offline and then delivers an automatic confirmation once the message has been read.

Harish Khandrika (Science)

A 17-year-old young man from La Jolla, California, Harish Khandrika analyzed data gathered by NASA from Centaurus A, the closest radioactive galaxy, and proved the existence of a super-massive black hole. By devising a computer script to analyze NASA data, Harish studied the radiation emitted from Centaurus A to gain insight into the galaxy's composition. His work tested laws of physics that scientists are unable to replicate on Earth due to gravity and atmosphere. The computer scripts Harish developed can be used by astrophysicists to expedite future research.

Natasha Simonova (Literature)

A 17-year-old young woman from Huntingdon Valley, Pennsylvania, Natasha Simonova crafted a portfolio, titled "The Renaissance: But Victual of Voracious Change," comprised of an excerpt from a novel, a short story, and poetry that explores life in the 1500s. Natasha combined historical exploration with fictional characters to weave compelling backdrops and plots to educate her readers about this particular era, while providing thought-provoking parallels between the Renaissance and modern-day life.

April Wang (Literature)

A 17-year-old young woman from Cincinnati, Ohio, April Wang is a budding author whose portfolio, entitled "Who Am I?", includes fiction, nonfiction and poetic works based on her life. Through her writing, April conveys the importance of following one's heart and exploring all the opportunities that life presents in order to discover individuality. She thoughtfully communicates her journey of self-exploration through characters that exhibit light-heartedness and humor while also invoking self-reflection in the reader.

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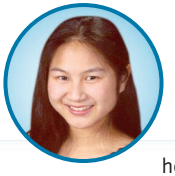
$10,000 Scholarship Recipients



Ann Chi (Science)

A 17-year-old young woman from Terre Haute, Indiana, Ann Chi used computer technology to study the fundamental reaction of metals with organic compounds and to identify a new way of understanding how and why these reactions take place. Ann's computational chemistry research builds on previous scientific research on transition metals and in hydrocarbon chemistry, a field important to many critical industries and in the production of a wide variety of commonly used products. Applications of Ann's work include the potential development of new metal catalysts.

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$10,000 Scholarship Recipients

Illya Filshtinskiy (Music)

A 17-year-old young man from Westerville, Ohio, Illya Filshtinskiy started playing the piano at the age of six in his native Ukraine. Impressing audiences with his fiery presentation and refined sound, Illya exhibits tremendous sensitivity, both musically and stylistically. In 2000, Illya moved to the United States where his passion and skill earned him both of the Young Artist Grand Prizes at the 2002 World Piano Competition. Illya will attend Juilliard this fall to study classical piano.

Lee Huttner (Philosophy)

A 15-year-old young man from Pittsburgh, Pennsylvania, Lee Huttner's philosophy portfolio titled, "The Religio-Spiritual Impulse and Its Biological Inherence in Humans," proposes a biological reason why many people gravitate toward religion. Lee's work is based on his extensive research of existing data collected from neurology, endocrinology, sociology and evolutionary biology. Lee compiled his interdisciplinary findings to explain changes in brain activity during meditation, prayer, and other religious practices. Lee's project not only displays his deep intellectual curiosity, but also his hope to demystify the human condition.

Anna-Katrina Shedletsky (Science)

A 17-year-old young woman from Brewster, New York, Anna-Katrina Shedletsky created a computer model to better understand how diseases spread among different populations. Unlike previous strategies of quarantining and vaccinating all who are ill, Anna-Katrina's strategy takes into consideration how individual populations are structured and uses this knowledge to determine whether or not the population disbursement of an area is more or less likely to inhibit or facilitate the spread of disease. Her work helps our country become better prepared for potential bio-terrorist attacks.

Stephanie Tse (Science)

A 17-year-old young woman from Los Angeles, Stephanie Tse's research could one day enable doctors to determine a patient's likelihood to develop colorectal cancer, the second-leading cause of cancer-related deaths in the United States. By isolating and testing the gene that is believed to cause colorectal cancer for mutations, Stephanie's work could potentially allow doctors to diagnose the condition years earlier and thereby treat the disease much more effectively.

WHO SHOULD Apply

Davidson Fellows applicants are individuals who recognize wisdom in the adage, "It's the journey, not the destination." They are passionate about their work and value the opportunity to learn. If you see these qualities in yourself and have been pursuing the development of your talents for an extended period of time, we encourage you to apply.

How to Become a Davidson Fellow

Applicants must submit:

- A detailed description of the significant piece of work and, in some categories, a portfolio containing copies of the original work and/or audio recordings.
- Information about the work, why and how the work was pursued, the challenges that were encountered, and a description of why the submission is a "significant piece of work."
- Three copies of a 15-minute videotape, narrated by the applicant, describing and showing the work.
- Three nomination forms: one from a mentor and/or supervising scientist; one from a teacher, tutor, or school administrator; and one from a professional in the field who is familiar with the applicant's work.
- A statement of commitment that, if named as a Davidson Fellow, the applicant and a parent/guardian will attend the award reception in Washington, D.C. in September.

To download an application, please visit **www.davidsonfellows.org**.

The Davidson Institute must receive Davidson Fellows applications by 5 p.m. Pacific Standard Time on the last Friday in March.

COULD YOU BE THE NEXT
DAVIDSON FELLOW?

Please visit our web site today to apply.
www.davidsonfellows.org

ABOUT
the Institute

Our Mission

The mission of the Davidson Institute for Talent Development is to recognize, nurture and support profoundly intelligent young people and to provide opportunities for them to develop their talents to make a positive difference.

Our Programs & Services

Davidson Young Scholars

Provides an individualized, family-oriented program aimed at nurturing profoundly intelligent young people between the ages of 4 and 18.

Davidson Fellows

Awards substantial scholarships to high-achieving young people in recognition of their prodigious accomplishments in math, science, technology, literature, philosophy and music.

Educators Guild

Provides information, training, and consulting services to professionals who work with profoundly intelligent young people.

GT-CyberSource

www.gtcybersource.org is the largest collection of resources for and about profoundly intelligent young people.

Genius Denied and www.GeniusDenied.com

Bob and Jan Davidson, founders of the Davidson Institute, are co-authors of ***Genius Denied: How to Stop Wasting Our Nation's Brightest Young Minds***, published by Simon & Schuster in April 2004. For more information about ***Genius Denied***, as well as federal and state gifted education policies, please visit **www.GeniusDenied.com**.

THINK Summer Institute

Provides 7th, 8th and 9th graders the opportunity to attend a summer residential college program and earn transferable college credits.

Davidson Institute
for Talent Development

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