

Davidson Fellow Laureate Daniel Kane

(\$50,000 Scholarship Recipient)



Personal Info Daniel Kane Age: 17 Madison, Wis.

School, College and Career Plans

Daniel is a recent graduate of Madison West High School and will attend the Massachusetts Institute of Technology (MIT) this fall. He plans to study mathematics and possibly physics or computer science.

Davidson Fellows Submission (Mathematics)

Daniel explored the theory of partitions, a branch of additive number theory, and proved a conjecture posed by national experts in the field. Daniel's work, titled "Two Papers on the Theory of Partitions," makes a significant advancement in number theory with farreaching applications in many other areas of mathematics, including the fields of coding theory, representation theory and algebraic geometry.

Biography

Daniel was raised in Madison, Wisconsin and graduated from Madison West High School in 2003. Throughout high school, Daniel took mathematics and science courses at the University of Wisconsin-Madison.

A National Merit Finalist, Daniel has qualified every year since 1999 for the Math Olympiad Summer Program. He represented the United States at the International Mathematical Olympiad in 2002 and 2003, receiving a gold medal in 2003. Daniel has also participated with the U.S. Physics Olympiad Team.

Daniel's work has been accepted for publication in mathematical journals such as *Proceedings of the American Mathematical Society* and *The Ramanujan Journal*. He has been a contributor to the *Mathematical Olympiads: Problems and Solutions from Around the World* from 1998 to the present.

Daniel was a member of his high school's cross country team for four years, played the clarinet in school bands from fifth grade through high school graduation, and occasionally played with the top orchestra and clarinet ensembles. He has also participated in The Young Shakespeare Players, an acting group that portrays unabridged, original-language productions of Shakespeare's plays.

Please see next page.



Davidson Fellow Laureate Daniel Kane

(Cont.)

Honors/Awards

- 2003 Davidson Fellow Laureate
- 2003 International Math Olympiad, Gold Medalist
- 2003 National Merit Finalist
- 2003 National Merit Scholar
- 2003 Wisconsin Academic Excellence Scholar
- 2003 Wisconsin Junior Science, Engineering and Humanities Symposium; First Place
- 2003 Wisconsin Math League, First Place in State
- 2003 American Regional Mathematics Competition, Fourth Place Nationally
- 2002 National Honor Society
- 2002 AP Scholar with Distinction
- 2001 AP Scholar
- 2001 Pi Mu Epsilon, National Honorary Mathematical Society
- 2001 USAMO Fellow of the Mathematical Association of America
- 2000 Latin Honor Society

Community Activities

Daniel serves as a peer tutor in Madison in multiple subjects, including mathematics, calculus and physics. He is also a grader at regional and state MathCounts Competitions, and an assistant to beginners at a local chess club.

Daniel has taken part in a variety of activities through religious organizations including helping at a Salvation Army shelter for homeless families, repairing wheelchairs and serving meals at Urban League and religious organization dinners.

###