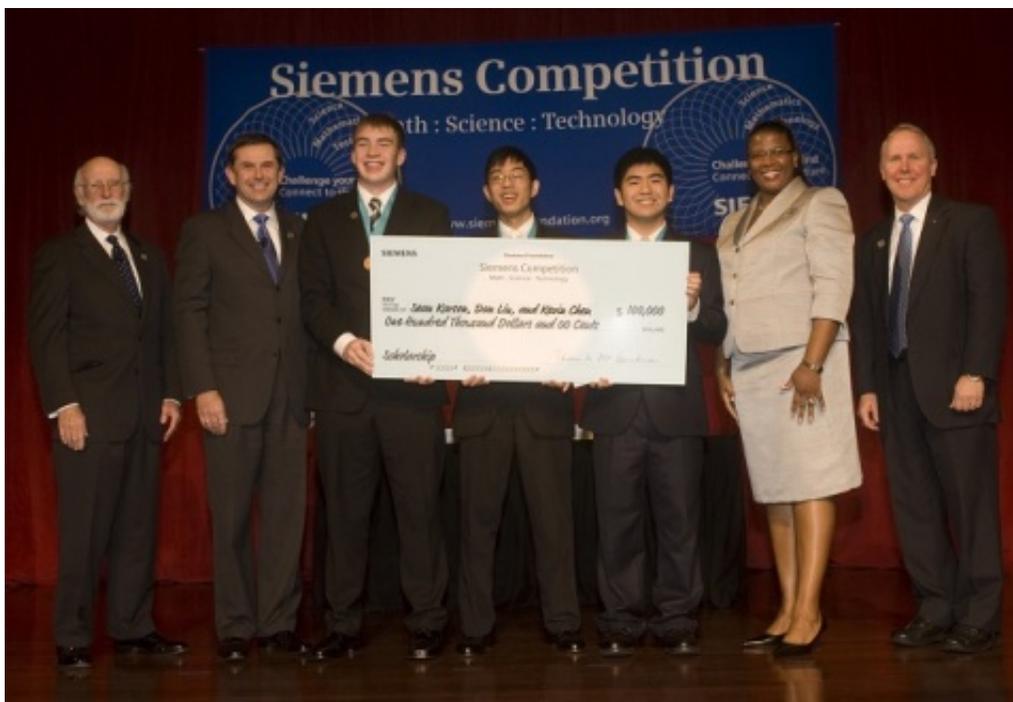


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# Texas State math camp team wins Siemens prize

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Holding their \$100,000 check, left to right, are Sean Karson, Kevin Chen and David Liu, who won the prestigious Siemens math and science competition for a project they developed at Texas State's Honors Summer Math Camp under the direction of Texas State mathematics professor Jian Shen.

## STAFF REPORT

Three high school students from the Honors Summer Math Camp (HSMC) at Texas State were named the winners of the Siemens Competition in Math, Science and Technology competition Monday morning, splitting a grand prize of \$100,000.

The group was mentored by Texas State mathematics professor Jian Shen, who began working with the group at this year's camp. The winning project was entitled "Relating Missing and Dycycling Edges in Directed Graphs."

After several near misses for the HSMC in the Siemens competition, it won first place for the first

time. A 20-year-old program, the HSMC has placed four teams (11 students) in the national finals of the Siemens competition, and 33 teams (94 students) in the semifinals or better.

The three students are Sean Karson, a senior at Trinity Preparatory High School in Winter Park, FL, Dan Liu, a junior at Liberal Arts and Science Academy High School in Austin, and Kevin Chen, a junior at Clements High School in Sugar Land.

The Siemens judges said their project advances the infrastructure and knowledge of graph theory by shedding new light on a problem that's been open in the mathematics community since 1978. The team's approach may open doors to a reduction of bottlenecks in complex networks, like the World Wide Web and transcontinental trade routes, thereby creating faster and more efficient processes.

"We never expected high school students to achieve such success in examining this upper bound aspect of graph theory," said Karen Collins, professor of mathematics, and Chair of the Department of Mathematics and Computer Science at Wesleyan University in Middletown, CT. "The team coupled enthusiasm and confidence with deep knowledge and substance, and their work has already been cited by other Mathematicians, showcasing its immediate impact for the mathematics community."

Karson has received Excellence Awards for Honors Computer Programming C++, Graphics I, Honors Chemistry, Honors Precalculus, AP JAVA and AP Chemistry. He has also received the Rensselaer Polytechnic Institute Math & Science Award and is recognized as a National Merit Semifinalist. Karson is Captain of the Quiz Bowl Team, President of Mu Alpha Theta, a member of both the Spanish Honor Society and the National Honor Society. In addition to his academic honors, Karson has received the Varsity Baseball Coach's Award and the Most Valuable Defensive Player Award, and has been the starting third baseman on the Varsity Baseball Team since his sophomore year. Karson leveraged his love of puzzles to create a club called Rubik's Revenge, aimed to teach middle school students how to solve Rubik's Cubes. In addition, he also volunteers for the Center of Math, Arts and Science Achievement, a program which encourages elementary school students to get excited to learn math and science.

Liu is currently Vice President of the InvenTeams Club, Co-Director of his school's Math Team, and a member of the Liberal Arts and Science Academy's (LASA) National Honor Society Chapter. Liu is also a part of the LASA Camerata Orchestra and Science Olympiad Team, as well as the Circle C Select Swim Team. Liu has previously participated in the 2009 Science Olympiad Regional Competition at the University of Texas at Austin and placed second in the Disease Detectives event. Liu also won first place in the arts-and-crafts division of the 2008 UT French Competition. In his spare time, Liu loves to play badminton, and he enjoys poker and computer games.

Chen is a member of his school's Mu Alpha Theta, Junior Engineering Technical Society and Computer Science Team, and is also an active volunteer through his school's Santa Exchange and at a local middle school Math Club. Chen has been selected as a Finalist at the U.S. Computing Olympiad, Semifinalist for the U.S. Physics Olympiad and Regional Winner of the Physics Bowl. He was also a three-time U.S. Mathematics Olympiad qualifier. Through Chen's participation in math competitions, he has been invited to meet the President of the United States on several occasions, and has appeared on the Regis and Kelly Show where he won the Relly Award for Best Junior Achiever. Chen enjoys practicing piano, playing tennis and programming games in his free time.