

Local students honored by state for STEM achievements

Two local high school students were recently recognized by the state for their outstanding achievements in science, technology, engineering and math (STEM).

Joyce Huang of Eastside High School and Katie He of Buchholz High are Alachua County Public Schools' representatives to the 2024 Sunshine State Scholars program. The program recognizes high school juniors from across the state who demonstrate excellence in STEM-related activities.

Huang is enrolled in the rigorous International Baccalaureate (IB) program at EHS, where she maintains a 5.0 weighted grade point average and has taken many Advanced Placement and IB math and science courses. She's founded and taken a leadership role in Eastside's USA Biology Olympiad, the High School Mathematical Contest in Modeling and National Science Bowl teams. She has designed a prototype to detect muscle stimulation and weakness. She writes STEM-related articles for the school newspaper. She even researched, wrote and illustrated a series of children's books explaining various biological and chemical processes.

In her qualifying essay for the program, Huang discussed the underrepresentation of low-income students, women and people of color in STEM and what she is doing and hopes to do to address that issue. That includes her work with the school's Science4Kids Club, which brings hands-on science activities to students in lower-income communities.

"Ultimately, the inclusion and encouragement of underrepresented demographic groups will benefit not just members of these groups, not just America's STEM fields, but all of American society as a whole," she wrote.

At Buchholz, He has earned the highest score of 5 on ten Advanced Placement science and math exams, including a perfect score on the AP Computer Science A Exam. She's an officer of the school's national championship math team, and in that role has organized summer camps and competitions for elementary and middle school students. She's vice-president of the CoderGirls club, which introduces female high school students to computer coding, and is the Gainesville chapter head of the INTEGIRLS, which hosts math competitions for girls in middle and high school. He has won a wide variety of STEM awards at the local, state and national level, including a first-place award in Calculus in the national Mu Alpha Theta Competition. She was also one of the top 40 female math competitors in the US and Canada invited to the summer G2Math program at Carnegie Mellon University.

In her essay, He addressed the prevalent but false notion that boys are better than girls at STEM subjects and what can be done to reverse the gender bias in STEM fields.

"One way to increase girls' participation in STEM is by providing them with many opportunities to engage in mathematics, said He. "Building a strong foundation in math gives girls confidence in their abilities, propelling them to overcome negative gender stereotypes."

Both students attended the 2024 Sunshine State Scholars program in Orlando in May, which gave them an opportunity to network with other top STEM scholars from around the state and connect with STEM-related employers and representatives from Florida colleges and universities.



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