



Davidson Institute  
**Fellows Scholarship**

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**PORTLAND TEEN AWARDED \$25,000 SCHOLARSHIP FOR  
DEVELOPING NOVEL SMART WILDLIFE SENTINEL TO PREVENT  
WILDLIFE-VEHICLE COLLISIONS**  
**Alan Ma Named A 2022 Davidson Fellows Scholarship Winner**

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Portland, Ore. – The Davidson Fellows Scholarship Program has announced the 2022 scholarship winners. Among the honorees is 17-year-old Alan Ma of Portland. Ma won a \$25,000 scholarship for his project, *Smart Wildlife Sentinel: Protecting Road Ecology with Deep Learning and IoT*. He is one of only 21 students across the country to be recognized as a 2022 scholarship winner.

“I’m deeply honored to have been named a Davidson Fellow this year,” said Ma. “I’m grateful to have been afforded this incredible opportunity to share my research and join a community of brilliant young minds. I hope that I can use this platform to inspire the next generation of innovators in solving tomorrow’s challenges.”

Inspired by a close call with native wildlife while driving home one evening, Ma developed a novel smart wildlife sentinel system with the goal of preventing wildlife-vehicle collisions by warning drivers of detected animal presence. Additionally, his sentinel monitors wildlife activity to provide a holistic understanding of ecological behaviors along roads with the goal of reducing collision frequency, protecting human and wildlife lives, and bolstering current wildlife conservation efforts where roadside wildlife activity data is lacking.

Ma is a rising senior attending Jesuit High School in Portland. In his free time, Ma enjoys exploring the outdoors through trail trekking, spotting wildlife, skiing, and playing tennis.

“This year’s class of Davidson Fellows Scholarship recipients continue to find new and innovative ways to pursue their educational and research journeys while striving to solve some of the world’s most vexing problems,” said Bob Davidson, founder of the Davidson Institute. “These students have not just overcome the challenges of doing significant work during a pandemic; our Fellows have embraced the new opportunities that have come from creative, outside-the-box thinking to use technology to expand their networks of mentors and access new sources of information and data, resulting in a very diverse portfolio of projects.”

The 2022 Davidson Fellows will be honored during a reception at the Massachusetts Institute of Technology and with a virtual project presentation ceremony in September 2022.

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,

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literature and music. The Davidson Fellows Scholarship has provided more than \$9 million in scholarship funds to 407 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, 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 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 2022 Davidson Fellows, please visit: [DavidsonFellows.org](#).

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*High-resolution photos are available at*  
[DavidsonFellows.org](#)