

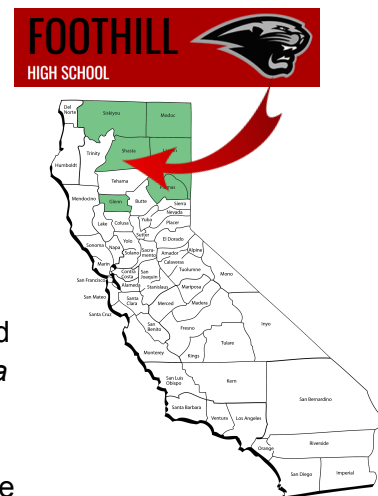
Headline:

Computer Science and Drone Competitions Elevate Student Excitement to New Heights in Redding

Article:

Brett Hodge has always been interested in airplanes – a passion he pursued in his bachelor degree in Aerospace Engineering at California Polytechnic State University, San Luis Obispo. With his background in aviation and looking to the skies for his next adventure, Brett has travelled the world (*from Tanzania to Istanbul, from the United Kingdom to Panama City*); collecting passport stamps all along the way.

As a young child, Brett and his parents moved to Redding, CA... where he attended local public schools – graduating from Foothill High School. After college, Brett returned to Redding to work at the summer kids' camp where he had been a counselor during high school. While working at the camp, Brett decided to join the Peace Corps (2017) and worked for two years as a Math Teacher in Zanzibar, an island off the coast of East Africa.



During Brett's Tanzania tenure, he helped organize a *"found object"* Flight Competition – where students had to design and build an airplane with only *"used materials"* (*essentially trash*). Over 100 kids participated, with some taking a ferry from the nearby island of Pemba. The competition proved to be an overwhelming success with the students, parents and the community. The three students with the longest flight times got to fly themselves, many for the first time, to the Africa mainland to compete in a final competition.

When his time with the Peace Corps was coming to a close, Brett got a call from one of his former teachers at Foothill High School, Matt Fowler, where Brett was part of the graduating class of 2009. First hired as a Math teacher, "Mr. Hodge" has also taught Science, Engineering and leads the Robotics Club. He currently teaches computer-focused electives: CAD, Engineering, and Computer Science Principles

Brett first interacted with the CS4NorCal* program when he attended a week-long training in the summer of 2023. He said he particularly liked the training because it was *"an intimate group of people that you really got to know throughout the week... and it felt like you had personalized mentoring. I wouldn't say I was 'great' at computer science before the CS4NorCal training,"* Brett continued, *"but the training really helped to reinforce my skills and feel more confident sharing those skills with my students. Computers are definitely going to be a part of our future and our high school students are interested in learning more everyday."*



As a life-long learner, Brett continues to hone tech expertise to share with his students. *"We have a lot of excitement around our computer programming classes... especially now with the introduction of drones,"* Brett said. *"The drones allow us to establish a program quickly, at a reasonable cost, and it really gets the students engaged,"* Brett said.



As the CTE teacher at Foothill High School, Brett is bringing his love of flight, computers, engineering and adventure to his students. Partnering with Sonsoles Abbott, a STEM teacher and CS enthusiast, Brett and Sonsoles organized the **first-ever aerial drone competition in Northern California**. Nearly 20 teams of middle and high school students from across the northstate competed at Foothill High School on Saturday, February 15. Beyond bragging rights, students practiced their drone flying skills, programming, flight principles and communication skills while building interest for future career opportunities. Four teams qualified from the competition to advance to a West Regional competition where they could face off against teams from across the U.S. and Canada.

"The benefit of the competition is learning specific coding (like loops, functions, variables) that they might take into tech fields as a programmer, but they are also learning teamwork skills," Brett said. *"Sometimes things don't happen the way you want and you have to communicate and work as a team to problem solve."*

Brett is excited to continue building the drone and CS programs at Foothill and is introducing his students to the emerging industry of 3D printing. In one of his computer design labs, Brett has five 3D printers and was actually able to print a pair of wearable Crocs (*sandals*)... further fueling excitement in computer science!

Earlier this month, Foothill High School earned College Board's AP[®] Computer Science Female Diversity Award for expanding young women's access to Computer Science Principles (CSP). The CS program Brett leads at Foothill High School was one of nationwide schools recognized for their work towards improving female representation during the previous school year. Brett said he tries to entice even more girls to sign up for the CS electives by showcasing subjects that peak their interests like fashion, interior design and architecture.

When he's not teaching in the classroom or exploring a new trail, Brett is relaxing at home with his girlfriend (Dani), their two cats and dog. He has plans to continue exploring the world (*by sky and by foot*) with the goal of one day hiking the national scenic Pacific Crest Trail (PCT) – a 2,650-mile trail that runs from Mexico to Canada through California, Oregon and Washington. Brett's love of travel, aeronautics, engineering and computer science are inspiring the next generation of tech enthusiasts... from the islands off Africa to the rolling hills of Redding.



About CS4NorCal

** CS4NorCal, a professional learning and research project serving over 100 schools (in Glenn, Lassen, Modoc, Plumas, Shasta and Siskiyou counties), promotes equitable access to computer science education for small and rural schools in Northern California. The project, started in June 2021, brings resources and builds capacity and partnerships to create opportunities to establish CS pathways in similar districts throughout the state. It is sponsored by the Small School Districts' Association.*

About Foothill High School



Foothill High School is a public high school in Palo Cedro, California that serves grades 9–12 as part of the Shasta Union High School District. From advanced placement courses to Career Tech Ed (CTE), the Foothill HS curriculum is designed to meet the needs of nearly 1,500 students.