

Microsoft Philanthropies TEALS



Mariah Breakey

Mariah Breakey is a software development engineer at Microsoft and a volunteer teacher with TEALS (Technology Education and Literacy in Schools). She spends several mornings a week in a TEALS computer science (CS) class in Seattle's Academy for Precision Learning (APL), a unique school that focuses on educating children impacted by autism. APL is the first school of its kind to incorporate TEALS, the Microsoft Philanthropies-supported grassroots initiative that brings computer science education to high schools without CS programs. Volunteers from across the technology industry instruct students and co-teach with the classroom teacher so the teacher can later take over the course, helping create sustainable high school CS programs across the country.

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When I was in high school, I loved math, so I decided to try computers, too. I ended up in an IT class of almost all boys who already knew how to take apart hardware. Meanwhile, I had no idea what was going on, since I had never had experience in anything in IT or computers. I felt so out of place, so left behind, that it confirmed my belief that computers were a “guy thing” and they just weren’t for me. For the rest of high school, I continued to take—and love—math classes, but I avoided further tech and computer science courses.

Fast forward to college: I had to take a programming class sophomore year as a requirement for my math major. It was so different from my high school class, which relied on a giant, dry textbook about how computers are built. Instead, the class taught me that computer science is about solving puzzles and logic problems—the very things that drew me to my math major. It was fun, it was exciting. I fell in love. That class put me on a path to earn a degree in computer science and begin a career in technology.

In my career, I was looking for a way to ensure young people didn’t miss the chance to give computer science a try, like I almost did. A friend told me about TEALS, and I signed up. Volunteering in a TEALS classroom has been more fulfilling than I could have ever imagined.

Although teaching is sometimes frustrating—like when it feels like I’ll never figure out a way to convey a concept in a way the kids understand—that challenge makes it even more rewarding. What’s more, since this is the first TEALS class made up of all students impacted by autism, we’ve had to learn by trial and error. My fellow volunteers and I talk every week and meet up once a month to talk through challenges and recap successes.

We’ve tailored the TEALS program to our class and to each individual student, since this class is the first to focus on students on the autism spectrum. Each high schooler works at his or her own pace, and we customize projects to their understanding. For example, we’ll set up the

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blocks of a program to get students started but will leave more for the advanced students to do on their own. That way, no one is left behind, and no one feels like they don't belong, like I did.

My students are persistent, and now I'm seeing the results of their mastery. Not long ago, one of my students returned to a calendar project we'd earlier done as a class. On her own time, she decided to program names for each of the 52 weeks of the year, just as we had named each month. That showed me my students aren't just reciting definitions or mimicking my examples. They're using their new skills to create something as unique as they are.

I wish I could have realized how much I love coding earlier instead of having to play catchup halfway through college. If I had taken a class like TEALS, I would have found this passion much sooner. That's why I love volunteering as a TEALS teacher. My students see all the cool things they can create through code. They realize that yes, computer science is for them.