

Diversifying STEM Passions With the Women Behind the Youth Passion Project; An Interview

What would you change about the STEM industry we know today? Meet two pioneers who are making that change happen: Aanya Schoetz and Natalie Dowd. Aanya and Natalie are both seniors in high school who are just two of the many forces behind the Youth Passion Project (YPP). YPP is a student-run organization where high schoolers teach free online classes to children. Natalie, a 3D Modeling Instructor for YPP's Westchester Chapter, yields an early opportunity for girls in engineering while overseeing the rapid growth of her chapter. Aanya is the organization's Chief Operating Officer who manages YPP's Chapter Presidents and quality standards. In this interview, Aanya and Natalie shared their stories to explore what it should and shouldn't take to be a woman in STEM. Most importantly, these innovators were able to detail the lessons they took away from some of their best and worst experiences in the field.

First, I asked Aanya and Natalie via Zoom, *"What is the YPP backstory? Why did you get involved?"* Aanya answered, *"Providing people that opportunity to explore what they want and what they love is really why I wanted to get involved with YPP... It kind of came about when the four of us [the four original co-founders] were on a Zoom call. Zack [YPP's President Zachary Siegel] came to us and said, 'Have you been able to explore any of the things you are passionate about during this time in quarantine?'"* Aanya said that her friends responded with a medley of activities they accomplished during the pandemic: coding, writing, and even composing an album. Zack countered these responses with his purpose, in Aanya's words, *"What if we were able to make that possible for other people, to explore their passions in some way?"* What followed was the brainstorming process that gave way to the modern semblance of the Youth Passion Project: *"giving highschoolers the platform to teach younger kids"* and offering *"parents some relief from their kids in quarantine,"* Aanya said.

With the young formation of YPP came incredible minds like Natalie; *"At some point in quarantine when I opened Facebook for the first time in a year the first thing that I saw was Zack's post advertising YPP. I reached out to him when I think the first [teaching] session was already underway. A couple weeks later, he reached out and asked if I wanted to teach a class. I have been teaching ever since. I teach two levels of 3D Modeling: beginner and intermediate. I use a modeling program called Fusion 360 that I started learning because my dad is an engineer. But, there aren't really any opportunities to start learning engineering younger,"* she said. And so, Natalie sought to offer that opportunity to youths through YPP.

Thus, the Youth Passion Project was born: a now-registered non-profit organization with chapters in Westchester, Dallas, Fairfield, Boston, Seoul, South Korea, and more. Natalie reflected on this expansion, *"I have done a couple interviews of instructors and it is wild that here is this super cool awesome person that I never would have had the chance to speak to if not for YPP."* Aanya added, *"Something I have especially noticed teaching philosophy to second graders is they are so uncorrupted by society that the things they say are the wildest answers to philosophical questions you can imagine."*

Outside of YPP, the culture of STEM industries and organizations is not as forgiving. Both Natalie and Aanya shared their experiences with sexism in the field. "The worst," Natalie revealed, "is when you see women with internalized misogyny." Natalie said she sees many of these women in STEM, who think they are different for being "a girl with practical skills and intelligence." As a woman who likes carpentry, Natalie also recalled when she was working at a woodshop when a random man told her that *"it's not supposed to be a girl in the woodshop, it should be a guy in the woodshop."* Natalie claimed that these acts of sexism, however, *"aren't emotionally impactful anymore"* because she has become accustomed to them. An experience of Aanya's that sadly turned her off of engineering proves the need for this objective. Aanya relayed how she would uncover obstacles *"every step of the way I would move forward"* in one robotics program. As a member of the STEM extracurricular program, Aanya would often find her ideas ignored by one team member only to be repeated as his own minutes later, highlighting the challenges girls face even amongst their peers.

Despite Natalie and Aanya's bad experiences in STEM, they cited their interpretations of the industry at large and advice for breaking into it. "I really had to fight to get the leadership position that I did," Aanya said. After struggling to become a robotics club leader alongside her biased team member, Aanya added that she gathered a *"new level of solidarity"* for other girls at her robotics tournaments. Aanya mentioned that she rallied this appreciation because women in STEM often get judged *"only as good as the last thing they say."* Natalie agreed, "girls just have to work ten times harder. If you make a mistake as a girl, you invalidate the entirety of your knowledge and skill in that area." To overcome this, Natalie and Aanya offered some words of advice for women considering STEM careers: *"don't let them doubt your intelligence,"* Aanya insisted. Even if you are a beginner, Natalie encouraged, *"remind yourself that you deserve to be there. Making a mistake does not mean you are unqualified."*