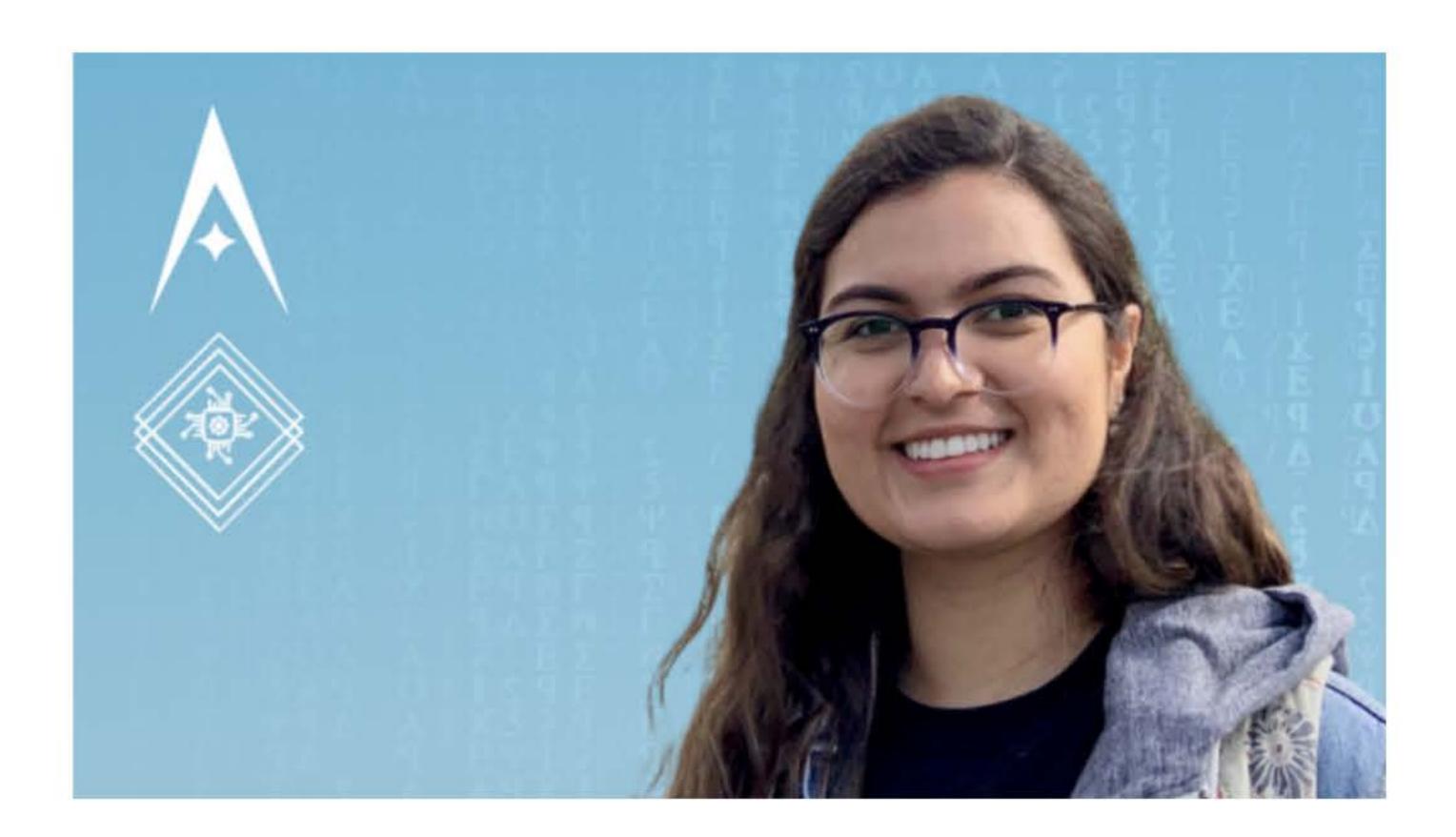
Forging a Path for Diversity

Building a community for diverse data scientists at UCSD



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Arely Vasquez is a first-generation college student from Long Beach, California. She is a 4th-year student studying Data Science at UC San Diego graduating this Spring. Arely is the founder of Diversity in Data Science (DDS), a student-run, non-profit organization with the purpose of building a community for under-represented students while promoting diversity within the Data Science department at UCSD.

As a first-generation college student and the youngest of three girls, preparing for college was tough for me since my parents couldn't walk me through every step. As I watched both of my older sisters attend college at UCLA and USD, they set high examples for my own ambitions. Although my parents never went to college, they have been very supportive of getting me here today and always encourage me, "You're doing great! Keep it up!." Nonetheless, I still compare my experiences to other students on campus whose parents with university educations can help build network connections and pathways to jobs after graduation. For me and my first-generation classmates, it's all up to us to not be afraid to seek help and forge our own path.

Being a woman of color in the data science world, I often feel like I just don't belong. It doesn't help that the tech industry as a whole is a very male-dominated area. It creates this feeling that I can't possibly be successful in data science if I never see that success in classmates or panelists with my same background and shared experiences. It's a problem that's also perpetuated in the professional world, where I often don't fit the mold that recruiters look for being a female Hispanic and a first-generation student. Job searching was terrifying, but I am proving that it's possible! After graduating this quarter, I am proud to announce I will be working as an IT Associate with SDG&E.

Why are people of color disproportionally represented by professors and teaching staff in top universities?

Last Summer, I had this amazing opportunity to build my own research project and join the Triton Research and Experiential Learning Scholars (TRELS) program. I chose to delve deeper into my own experiences, creating a machine learning model that identifies top determining factors in whether a first-generation student decides to attend college. It was a very rewarding feeling to use data science to support underrepresented students like myself. I continued my project into this Fall quarter, where it evolved into an investigation of equity in the STEM curriculum. It led me to the question: Why are people of color disproportionally represented by professors and teaching staff in top universities? And how does this impact our quality of education, academic pursuits, and career opportunities in the future? This project became the foundation that eventually led to forming a student organization that supports underrepresented students and promotes diversity.

Soon after finishing my project, I had the opportunity to connect with Saura Naderi, the HDSI K-14 Outreach Director, and we had this powerful conversation about promoting diversity in higher education. Saura helped, supported, and gave me the confidence to begin Diversity in Data Science. That's how it all began. Because our data science program at UCSD is fairly new and groundbreaking, there is a lot of area for growth and student involvement that I wanted to fill. I wanted to build a space for us that celebrates our diversity and unique experiences as people of color in data science. We need a community we can share our mutual experiences with, to encourage and support one another as we make this long journey in college.

Turning my vision into a reality and finding confidence in our direction was harder than I thought. Early on in conceptualization, I had this epiphany of "I don't know how to do this." We had to put together a team, seek university approval, go through formal training, and so much more. I put out a notice in the HDSI newsletter, and I was only expecting maybe one or two people to contact me. The number of messages I received from students wanting to join and support just from that first notice was overwhelming and tearful. It really confirmed that what we were building was filling a need for so many other students on campus. And as our team grew, we began pushing forward past all my initial roadblocks. Now that we've finally made it to where we are today, we can focus on our end goal: to promote diversity in data science and build our community. We have game nights, project teams, big-little mentorship, and we finally got our website up. It's all so exciting. I am beyond thankful for everyone at HDSI and the DDS board who gave me this chance to build a space for students who are like me.

I hope that in the future equity and diversity can be explored more in the HDSI curriculum.

My long-term goal for Diversity in Data Science is for this club to live beyond my own time here at UCSD. I am very proud of the team we have, and I look forward to passing on that torch after I graduate this quarter. I want our mission and purpose to be clear to everyone on campus. And of course, I want our community to continue to grow. Currently, we data scientists at UCSD have to fulfill a senior capstone project as a part of the HDSI curriculum. In the coming years, I hope that equity and diversity can be explored more in the program, especially since it's a topic that can be tabled in the workforce.

My advice for people of color entering the STEM field is this: It's important to keep trying, and you can't get discouraged. At times, it can feel like it's impossible with all these extra barriers we face. But we have to keep leaping over each hurdle, and as much as possible never take things personally. Find your drive and your role models. For me, it's my family — I truly aspire to make them proud. Surround yourself with people who let you be you. Look for mentorship, seek help when you need it. And most importantly, you don't have to make this journey alone.

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Connect with Arely: https://www.linkedin.com/in/arely-vasquez/