

Diversity statement

Growing up, I was one of a few Hispanic high school students in a homogeneous and conservative community. While I am from a multiracial family, I was always painfully aware that we were viewed as a disruption to the community. This feeling melted away when moving into my undergraduate dorm at Western Michigan University. People I would meet in my dorm, classes, and extracurriculars had such variety, richness, and depth. My years at WMU taught me that each individual lies at the intersection of their identities; they carry a unique set of experiences and perspectives that enrich—not disrupt—a community.

Leaving my support network and starting fresh in graduate school at Pitt was rather daunting. A two-year fellowship aided this transition through Pitt's Success, Transition, Representation, Innovation, Vision, and Education (STRIVE) program. STRIVE aims to support historically underrepresented students in doctoral engineering programs by establishing and nurturing a vibrant community. They host several community building and professional development events throughout the year, but the most impactful is their two-day annual retreat in August. Students, faculty, and administrators come together as equals to build mentorships outside the traditional Ph.D. advisor. As I became more experienced, I was able to mentor incoming graduate students and demystify several aspects for international and first-generation students, such as filing taxes, fellowship applications, and ombuds.

STRIVE's retreat is where I met Dr. Alaine Allen, now the Associate Dean for Diversity, Equity, and Inclusion at CMU. Shortly after, she encouraged me to be an instructor for INVESTING NOW, a college preparatory program created for historically underrepresented groups in STEM. As an instructor, I designed an activity-based course about energy and sustainability for around 20 incoming high school juniors. I honed my ability to create an environment where all students feel safe and comfortable sharing their perspectives and ideas. One defining moment was during my lecture about equitable access to clean water, where I facilitated a discussion about the chemistry and politics behind the Flint water crisis. This led to a fruitful discussion about how Pittsburgh handles lead in drinking water and avenues to address social justice and equity issues. I strive to tailor my curriculum to ensure all students see themselves and their experiences reflected in the course material.

INVESTING NOW is also where I learned the importance of accessible teaching. There was one student in particular, Eugene, with whom I struggled to get engaged until one class where I introduced the electromagnetic spectrum. He asked me his first question in the course, "Are gamma rays the same thing that turned Bruce Banner into the Hulk?" I have never been so excited to answer a seemingly off-topic question as I realized I could leverage his interest in Marvel comic books to keep him engaged. Accessibility also encompasses sharing knowledge freely with anyone seeking it. This principle permeates my teaching and research, where I routinely release lectures, class notes, software, and data on my website at no cost. Accessibility is multifaceted, and programs such as INVESTING NOW are vital to foster this. That withstanding, it is a shame that INVESTING NOW could not secure funding and is presently shut down. I sincerely hope the Provost's office revives this program and continues to impact others as it did me.