

While computer science departments are making a more conscious effort to diversify their student bodies, the work to achieve an inclusive program must not end at enrollment. Students that identify as underrepresented minorities face a unique set of challenges, including biases, microaggressions, imposter syndrome, accessibility issues, and more. Further, differences in socioeconomic upbringing and educational opportunities among students can create gaps in foundational knowledge. For international students and immigrants, these challenges can be compounded with culture shock, financial constraints, legal restrictions, and feelings of isolation from being so far away from family and friends. As someone who has experienced many of these challenges firsthand, I am sensitive to the unique needs of a diverse student body and, as an educator, I am committed to creating a safe and inclusive learning environment for all.

**Mentorship Experience.** Throughout my time as a graduate student and postdoctoral researcher, I have had the opportunity to formally mentor three women, as well as four international minority men from India, Iraq, Saudi Arabia, and Spain. I have also been an informal mentor to five Egyptian students that came to study in the United States. I held weekly one-on-one meetings with my mentees in which we talked about their classes, research progress, and future goals, as well as any personal issues they might be having. In addition to academic mentorship, I have been able to advise many international students on topics like enrollment paperwork through the university, summer internships while on their student visa, aspects of American culture or language that are confusing for them, and more.

**Teaching.** In scientific fields, it may seem like there is little room to incorporate diversity in lectures due to the technical nature of the content. However, using real-world examples to connect theory to practice and encouraging interactions among diverse groups of students both provide excellent opportunities to do so. In the tutorials I have taught, I include some open-ended challenge questions at the end of each section on identifying ways to use the software for specific scientific applications and encourage tables to work as teams to come up with solutions that they then present to the room. This strategy creates discussion amongst diverse groups of people with different backgrounds and has led to some very creative ideas. I also plan to incorporate diversity in my teaching as a professor through course projects that center around the idea of “computing for social good.” For example, can we use data about homeless camps to figure out where the most impactful locations to deploy a limited number of mobile health clinics, can we learn anything from groundwater data that will help provide clean water access to those in developing countries, or can we use machine learning on specific Twitter feeds to try to identify those in need of mental health intervention.

**Research.** Growing up in Egypt, I witnessed extreme wealth disparity and its ripple effects on educational opportunity and upward mobility, which made me realize just how high the barriers are to make a better life for yourself when you do not know where your next meal is going to come from. Influenced by my experiences, my research vision is to create an ethical artificial intelligence system that can help ensure fair and just decision-making at a global scale – making decisions for the betterment of humanity. I hope that such a system can help foster equality among us while preventing corruption. Creating and debating the ethical implications of such a system requires input from people of all backgrounds sharing their experiences – there is so much value in the ways in which our different life experiences shape the way we approach and look at problems. I will strive to make sure that my future research lab reflects this diversity and is a safe space where students can share their perspectives and challenges.

**Outreach.** I am also interested in helping minority and international students with non-research related issues and collaborating with my colleagues in the department on ways to improve the global reach of research and learning. For example, many people do not realize that holidays, such as Thanksgiving or those specific to minority students’ cultures or religions, can be extremely lonesome for students far away from home. Knowing this, I encourage my mentees to make special plans for the day well in advance and assist them in creating those plans. As a professor, I would love to organize departmental events for any student that does not have somewhere to go. Small actions such as these go a long way in demonstrating that the department is mindful of different student circumstances and committed to inclusion.

Diversity is a stepping stone on the road to equality but itself alone is not enough. I firmly believe that supporting minorities and those who have been dealt an unfair hand in life is our responsibility as fellow humans. Further, it is our duty as educators to support them because access to quality education and research for all is fundamentally important to equality. As a faculty member, I will take an active role in bringing discussions around diversity and inclusion into the department and making sure all students feel welcome. I believe that education and action are the keys to achieving equality and I welcome the opportunity to be part of an environment that shares my values.