Challenges of diversity and inclusion in education. Even though computer science has significantly grown in the last two decades and affects people worldwide, most researchers and practitioners are white or Asian males. Women accounted for less than a third (29.3%) of those employed in scientific research and development across the world[1]. One major cause of this gender gap is the socially determined gender differences in abilities necessary for success. Being a first generation engineer from a middle-class family, I can relate to the struggles faced by underrepresented or economically disadvantaged groups. While studying and working at different geographic locations, I have interacted with many professors, colleagues, students, and friends to learn about their diverse academic and cultural backgrounds. I realize how important it is to be mindful of classroom dynamics, especially the one with non-CS or underrepresented students, as having one bad experience in that class can make a student decide to drop the CS major even though that student may have had a successful career in CS. I have witnessed a couple of students who decided to leave CS because of bad classroom experiences.

Contributions made towards addressing gender-gap. Women experience biased treatment [1] and are least prevalent in obtaining Computer Science degrees among all STEM Fields [2]. To contribute towards equity while working in industry, I mentored three first-year female undergraduate students hired as research interns to motivate them to build their careers in STEM. I worked with them on a research project for nine months, and we won the *Project with Best Business Impact* award. Two of the students are currently working as data scientists in Facebook and PhonePe, respectively, and the third student works as a senior manager Strategy & Analytics at Diageo. While pursuing my PhD, I mentored two female first-year MS students on research projects, and one of the research work even got published. One of the students earned her MS degree and works at Microsoft, while the other student decided to go for a PhD after finishing her MS and is currently pursuing her PhD at UMass Amherst. Finally, I have tutored 11 female undergraduate students in online one-on-one sessions who struggled with their CS courses in classrooms to help them in their studies.

Contributions made towards promoting inclusivity. At UMass Amherst, students come from many different countries. Coming to a foreign country for the first time to pursue higher education can be stressful for students. As part of the Indian Students Association at UMass Amherst, I made first-year students coming from India feel inclusive at UMass Amherst by arranging their pickup from the airport, arranging their temporary accommodations until they finalize their permanent stay, and providing them all kinds of support to make them feel welcomed and comfortable. I was elected to be one of the graduate student representatives at the CICS to voice any concerns about faculty favoritism or discrimination in the faculty meetings that graduate students faced. As a member of graduate student representatives, we conducted anonymous student surveys to ask students about what sort of issues they were facing. For example, one of the issues raised by students was a lack of social interactions, and that students happened to form circles with other students who typically belong to their own country or culture. This made some students, especially those who did not have other students from their own country, feel alienated. To address this, we organized special social events such as camping, where many students signed up to spend a day breaking their silos and making new friends. Being a graduate student representative, I also participated in the faculty hiring process, where we interviewed many faculty candidates. While interviewing, we ensured to ask the candidates about their experiences (if any) of teaching/advising underrepresented students and mentioned it in our feedback to the hiring committee. Currently, I am helping in recruiting underrepresented PhD students via student-led *PhD Applicant Support Program*[2] by providing one-on-one mentorship and feedback on PhD application materials to underrepresented applicants.

Future plans. Computer science is a foundational subject for all 21st-century careers. Studies show that students who study computer science during high school perform better in other courses, excel at problem-

[1] `http://uis.unesco.org/sites/default/files/documents/fs55-women-in-science-2019-en.pdf`

[2] `https://paspumasscs.github.io/`

solving, and are 17% more likely to enroll in college.[3] Thus, to help in recruiting diverse students, I will seek out or start programs such as *Eureka!*[4] at UMass Amherst to conduct summer workshops for high school students and get them excited about CS. I firmly believe that we must never deny students an opportunity to study based on their gender, caste, color, creed, religion, family income, or location they grew up. As a faculty, I will strive to be a teacher and researcher who fosters diversity. For example, I will develop and maintain a feeling of safety in expressing ideas and helping students to see that it is possible to disagree respectfully and articulate views in a way that problematizes the *ideas*, not the person. I will also assess myself and be aware of behaviors that can undermine dignity and respect such as using racial microaggressions[5], making insensitive remarks, not allowing someone to speak because of their ideology or opinions, using non-inclusive language, stereotyping, targeting, othering, and name-calling. I believe empathy and respect experienced by a person go a long way toward ensuring a better feeling of inclusion. I intend to emphasize these values in the classroom and my research group. To conclude, as a faculty, I will welcome and honor differences, support inclusivity, respect, and equity in all aspects for students from all backgrounds and support them in all possible ways to have a successful future.

References

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[2] Emilda B. Rivers. Women, minorities, and persons with disabilities in science and engineering. *National Science Foundation*, 2017.

[3] `https://bit.ly/3l5kJTB`

[4] `https://www.cns.umass.edu/outreach/eureka-umass-amherst`

[5] `https://upenn.app.box.com/s/7y37kpna251d08jfhetp60xv89h99tjm`