

As an immigrant, an international student, and a person of color I strongly value the need for diversity, equity, and inclusion in our workforce and education programs. During my graduate school, I have been fortunate to interact with students from various under-represented and under-served communities. These interactions helped me understand the hurdles they often face due to race, ethnicity, religion, socio-economic conditions, disability status, sexual orientation and gender identities.

Improving diversity through mentoring. I believe some of the best ways to promote inclusion and diversity are through visibility and mentorship. I have strived to contribute to initiatives that promote diversity and inclusion in education and workforce. For instance, I served as a research mentor for Tech+Research team at Technica, the largest hackathon for under-represented genders in computer science, where I guided a team of women and non-binary students to perform a small-scale research project. I designed exercises, and worked with the students on a one-to-one basis to clarify their understanding, eventually leading the students to apply their learnings to a non-trivial project. Additionally, I joined the peer mentorship program of the CS department at University of Maryland (UMD) to support early-stage graduate students from under-served populations. I mentored two PhD students and gave them a safe space to ask questions and gave them advice about their respective situations. I was able to help one of my mentees navigate a difficult relationship with their advisor. As a faculty member, I plan to continue to support the creation or operation of programs and safe spaces that allow mentorship for under-served undergraduates and graduate students.

Admissions as a means to diversity. Computer Science has a *pipeline problem*, i.e., advanced programs are less diverse than programs for earlier-stage students. The gender imbalance is worse when comparing students across disciplines. About 60% undergraduate students are women according to National Student Clearinghouse Research Center [3]. However, only about 22% of enrolled undergraduates are in CS according to CRA Taulbee Survey 2021 [2]. This is only one aspect of lack of diversity, yet it is one of many ways in which the lack of diversity in CS hampers innovation by excluding insights from those that might drive the field forward. I served on the graduate admissions committee for the CS department at the UMD to screen applications from prospective students. I focused on including more candidates from under-represented backgrounds without compromising the quality metrics set by the department. As a future faculty, I would like to push towards admissions processes that screen more people from under-served communities, such that more people from diverse backgrounds can be hired without compromising quality.

Fairness and inclusion within classroom. As an instructor for both undergraduate and graduate courses, I will design the curriculum cognizant of student from marginalized communities. I believe every student learns through different medium and to accommodate those needs I will present information through three different mediums: visually through slides, verbally through explanations, and hands-on activity or quick exercises in class to encourage the students to apply the concepts they learned. Prior research has shown, students from marginalized communities are less likely to ask or answer questions in a classroom setting [1]. To help combat this, I will organize group activities for classes, rather than calling on students individually. Strict class rules and assignment deadlines can also put such students at a disadvantage. I will accommodate such requests and allow students to use a fixed number of late tokens to turn in assignments late without any penalty.

As a new faculty, researcher, and a teacher, I will continue my current efforts in promoting diversity, equity and inclusion. I will create a welcoming, respectful, collaborative and inclusive environment both in my class and research group by promoting the values of diversity and equity.

References

- [1] Ayelet Baram-Tsabari and Anat Yarden. "Quantifying the gender gap in science interests". In: *International Journal of Science and Mathematics Education* 9.3 (2011), pp. 523–550.
- [2] CRA Taulbee Survey. <https://cra.org/wp-content/uploads/2022/05/2021-Taulbee-Survey.pdf>. 2021.
- [3] NSCRC Spring 2022 Enrollment Estimates. https://nscresearchcenter.org/wp-content/uploads/CTEE_Report_Spring_2022.pdf. 2022.