Diversity Statement

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As a faculty member, promoting diversity, equity, and inclusion at all levels—within my group, department, university, and larger community—would be one of my most important jobs. I believe supporting DEI is not only the right thing to do, but also the strategic thing to do if we want to build the strongest labs and intellectual communities.

Promoting DEI *in computer science* is especially important. It is clear that the current make-up of our field is not representative of the broader population. These imbalances speak to a lack of inclusivity in the field that manifests early in the professional pipeline and persists throughout. Furthermore, given the deep and wide-ranging impacts that computer science has on society, we *must* improve DEI in our field to avoid perpetuating and amplifying existing inequalities and biases. Within machine learning and robotics in particular, we already have troubling examples of gender and racial biases in datasets and algorithms leading to harm. We need our field to be diverse, equitable, and inclusive so that we can mitigate these issues early in the research process and direct our work towards applications with positive societal impact.

In the remainder, I discuss some of the experiences that have influenced my perspective on DEI and my plans to promote DEI as a faculty member.

My Experience with Diversity, Equity, and Inclusion

Digital Literacy Project. Much of my time outside of classes in college was devoted to a program I started called the Digital Literacy Project (DLP). I created DLP because I was troubled by the obvious lack of diversity in my computer science (CS) department and the feeling of being in a "Harvard bubble" insulated from the greater Boston area. My goal was to pop that bubble and use the incredible privilege of being a Harvard CS student to address DEI issues that begin early in the academic pipeline. To start, my team and I developed and delivered weekly CS lessons to students in Boston middle and high schools. We targeted schools with large populations of groups historically marginalized in CS, knowing such students are statistically less likely to take the AP CS exam by the time they reach high school, and insisted on gender parity in our classes, teaching staff, and leadership. Over three years, we reached over 800 students with a team of 50 volunteers; donated 15 computers and raised $20,000 to sustain the program; and created an original 10-week curriculum with an accompanying 67-page workbook for each student. We carefully constructed our lessons to avoid subtle bias (e.g. gendered examples), determined to not only teach CS content, but also to convince all of our students that they could be computer scientists if they so desired. With the help of experts from the Harvard Graduate School of Education, we designed and implemented a volunteer training program, including sections devoted to unconscious bias and diversity in STEM. We were also contacted by a non-profit in Argentina (El Desafío) that wanted to add a CS class to their afterschool program. I traveled with three other DLP volunteers to Argentina and helped them create the class.

MIT Summer Research Program. My feeling in creating DLP was that DEI issues in CS are already so pronounced by the time people enter college, let alone graduate school or professional life, that we need to focus earlier. I still believe starting these efforts early is crucial, but I now appreciate that there is important work to be done at all stages of the pipeline. In 2022, I signed up to mentor two students, Abraham Mitchell and Wester Aldarondo-Torres, through the MIT Summer Research Program (MSRP), which aims to increase diversity in research by inviting undergraduate students from other institutions to pursue projects at MIT. I designed projects for Abraham and Wester and we worked closely together throughout the summer. I was happy when they both expressed increasing interest in pursuing graduate school and opted to continue their

projects into the fall. As we continued to work together remotely, I was in awe of their persistence in the face of numerous barriers. In Puerto Rico, Wester's home lost power for weeks after Hurricane Fiona, but he still managed to make research progress by working out of a local restaurant (despite my encouragement to take a break!). In Arkansas, Abraham made time for research on top of working two part-time jobs and pursuing a full course load. In light of these challenges, I lobbied the MSRP administrators to waive and extend deadlines for non-essential program requirements (e.g., written project updates). Overall, the experience opened my eyes to the extraordinary physical, social, and financial challenges that some students face and redoubled by commitment to include these students in research.

My Plans for Diversity, Equity, and Inclusion

In my lab. One of the clearest opportunities to promote DEI as a faculty member is in hiring. I plan to make every effort to recruit a diverse group. Especially in the first few years, I will be proactive in searching for potential lab members and not just limit myself to people who are already planning to apply. The first few hires that I make will be the most impactful, and not just because they will define the nature of my group: if I hire five people who look exactly like me (literally and figuratively), I will have a much harder time finding a sixth person to break the mold. DEI can't be delayed—it will be a priority from day one. Beyond hiring, there are a large volume of small decisions that will ultimately determine the extent to which my group is welcoming and inclusive. For example, I may be faced with the decision to either give students access to a lab credit card or reimburse them afterward when they are making arrangements for conferences or purchasing equipment. Even if it is riskier or more work, I would favor using a lab credit card because I know that waiting for reimbursement can impose a disproportionate burden on students from less secure socioeconomic backgrounds (and perhaps even discourage them from fully utilizing the lab's resources). Another example would be choosing lab social activities. I would be careful to choose an activity that feels fun and welcoming for everyone in the lab, rather than one that feels more targeted to any particular subset.

In my department. Beyond my own lab, I would hope to take an active role in department admissions and hiring. I have reviewed applications for the MIT EECS PhD program for three years. The training for that process emphasizes DEI and suggests strategies for identifying strong candidates with non-traditional backgrounds. These are processes that can be continuously improved, especially through retrospective analysis, and I would be eager to take a leading role in implementing these improvements. I would also hope to strengthen and establish relationships with Historically Black Colleges and Universities (HBCUs), women's colleges, and other institutions that serve marginalized groups. When teaching, especially in introductory classes, I would take the opportunity to raise DEI issues and talk about the societal implications of our work. When I was taking Intro to Artificial Intelligence in college, my professor (Sasha Rush) made a point to discuss the severe discrimination that Alan Turing faced as a gay man, which likely played a major role in his untimely death. Even though the discussion was short, it made a big impression on me. I would hope to have a similar impact on my students.

In my university and local community. My experiences with DLP and MSRP have impressed upon me the value of extracurricular programs for promoting DEI. Through DLP, I also learned the importance of faculty support, even for organizations that are primarily student-run. I would be very excited to help existing volunteering and pre-professional organizations on campus, or encourage students to start new ones. In most situations, my role would be one of allyship. For students trying to navigate a university's administrative processes, having a faculty ally can be invaluable; I would be eager to provide that support. I would also be excited to foster connections between my university and the local community. Teaching programs like DLP represent one kind of long-term engagement, but there are many other possibilities: collaborations with community groups, open-invitation events on campus, and summer programs for all ages, among others.