Diversity Statement

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As a faculty member, I'm committed to achieving an academic environment where students of all backgrounds can be successful. This task isn't easy, as students come from a variety of experiences which shape their existing abilities to work within the structures of academia, which have traditionally been designed around particular groups in our society. As a Latino PhD student in computer science, I've seen firsthand the stark lack of representation in my program: I never encountered a Latino or black professor during my time at UCSD, knew only one other Latino PhD student; his name was also Alex.

It's impossible to point to a single factor causing this lack of representation in CS academia. There are many factors at many different points in our education system, from young women and people of color being pushed away from stem in early education, to the use of metrics in graduate school applications which are shown to disadvantage these groups. But along with each of these obstacles comes a unique opportunity for us to increase the availability of the academic environment, and thus increase the talent pool for producing high-class research while simultaneously providing quality role models for society at large.

During my time at UCSD, I worked to address some of these issues in two places: admissions, and early grad school mentorship. Both of these areas can be quantitatively shown to contribute to lack of representation in CS: admissions rates for women, black, and hispanic students are lower than their white, male counterparts due to a variety of factors, and once they get into graduate school, those students are less likely to complete their degrees. For the most part, I don't believe that these problems are due to admissions committees and faculty acting maliciously towards people of color, but rather due to structural issues that are only beginning to be understood.

In my second year at UCSD, I met with the chair of the graduate program committee Sorin Lerner, and the chair of the department Dean Tullsen, as well as the chair of the admissions committee Alin Deutsch, to discuss the PhD admissions process at UCSD, and how it could be improved. We discovered two troubling factors over the course of this meeting. Firstly, that while the faculty hiring committee received training on implicit bias and how it could factor into the hiring process, there was no such training for the committee in charge of PhD student admission. And secondly, some of our best and brightest students had initially been rejected in the first phase of admissions, and were only admitted later because faculty had heard about their application through external channels, and pulled it from the rejects pile.

This second fact, while it shows the benefits of a holistic admissions process where faculty across institutions can communicate, is troubling because it begs the question: what about the applicants of similar ability, who didn't have access to members of the community to advocate for them?

To address both these issues, **I co-founded a student-led PhD admissions committee, where existing PhD students reviewed the applications of prospective PhD students alongside faculty**. These students were given implicit bias training, and an express mission: find the applicants who might otherwise be overlooked. Metrics like the GRE, which studies show correlates with wealth and race much more tightly than it does with PhD student performance, were given diminished importance, while personal statements, hobbies, and achievements were considered more highly. Our committee had as one of it's explicit duties compiling a list of students who we think would contribute to the culture of diversity at UCSD, passing this list on to the faculty for consideration for diversity scholarships. But its broader goal was also to increase diversity of background in more subtle ways, by finding the students who would be overlooked due to their background or lack of connections and support, and giving their application a second chance.

Once students of non-traditional cs backgrounds make it into a PhD program however, they often feel lost without the cultural support networks that other students enjoy. Students who share a background with those established in CS already enjoy the benefits of informal mentorship relationships that give them a sense of confidence and security in navigating the challenges of grad school. To bring the benefits of such mentorship to disadvantaged students, I wanted to provide a formal framework for such mentorship opportunities, so that any student could have access to a mentor.

Mentorship of students has long been a passion of mine. My own mentors during my undergraduate research and early in my PhD had an outsized impact on my work and life, and I've always looked for opportunities to pass that influence and inspiration along. Because of my passion for mentorship, and the real need of mentorship for underserved students, **I became a founding co-chair of the Graduate Women in Computing's mentorship committee at UCSD**. Our committee pairs older, more established grad

students with younger students of a variety of backgrounds. The hope is that this kind of one-on-one mentorship can help all students, but especially students of non-traditional cs backgrounds, find their bearings and feel more confident and secure in the graduate school environment. I personally found it very gratifying to mentor through this program, engaging with students I wouldn't normally get to know, and watching them grow as students as they learn to navigate the grad school environment. Possibly more gratifying though was watching the committee continue under a new generation of leaders after I had left it, poised to become a permanent UCSD CS institution.

As faculty, I plan to continue my work increasing the accessibility of academia to students and faculty of all backgrounds. There's still a long way to go in equitable admissions and mentorship, as well as many other opportunities for increasing the diversity of our academic environment, from attending the Grace Hopper Conference to persuade more undergraduate women to pursue graduate education in CS, to participating in programs bringing CS education to under-served public schools. Together with my colleagues, I will work towards an academia, and a world, in which no student feels alone.