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Statement of Contributions to Diversity

Welcoming students from *all* backgrounds into science is important for cultivating a flourishing workforce and society. In my academic career, I've been humbled by the opportunity to support students from a variety of diverse and underrepresented backgrounds. I center equity, diversity, inclusion, and belonging (EDIB) in all my educational efforts to 1) create inclusive learning environments that promote belonging, 2) eradicate structural inequities and barriers to student success, and 3) increase access to resources and opportunities for underrepresented groups, especially early in the "leaky pipeline." By committing to these goals, I aim to continually grow as an educator, researcher, and mentor in higher education.

Inclusion, Representation, and Belonging in Science

Throughout my career, I have often felt discouraged as the only woman present in my classrooms and research labs. There is a notable lack of gender diversity among science faculty, and especially so in computational fields such as mine. Too often, young women and people of color are funneled out of STEM fields simply because they do not see anyone that looks like them at the front of the room (Herrmann et al., 2016; Kricorian et al., 2020). In an effort to personally remedy this, **I made it a goal to recruit a diverse teaching staff** for the course *Artificial and Natural Intelligence*, without sacrificing a high standard of teaching. The resulting course staff was equally split between men and women and consisted entirely of people of color, many of whom spoke with accents. I emphasize this because even something as subtle as normalizing instructors' accents can shape students' "ideal image" of a scientist. In my own lectures, **I highlight examples of women and minority scientists wherever possible**, the most recent being [Charles Henry Turner](#), a black scientist whose groundbreaking research on animal behavior was quickly forgotten due to his skin color. To further emphasize inclusion and belonging in the classroom, **I strive to address each student by their preferred name and pronouns** and always double check if I am pronouncing their names correctly.

Feelings of belonging and psychological safety have been shown to promote success and performance in the workplace and are positively correlated with learning, motivation, and student retention at universities (Edmondson, 2019; Pedler et al., 2022). However, psychological safety can be easily disrupted by a variety of factors, such as the overwhelming racial turmoil present in our nation. In response to George Floyd's murder in the Summer of 2020, **I started a discussion forum called "[Listening Labs](#)" to center marginalized voices and create space for difficult conversations about racism in our department**. I felt that there were many important issues surrounding race, identity, and inclusion that were not being discussed in our labs, and especially so in a culture that tends to characterize people by their academic accomplishments. Listening Labs provided a space for underrepresented individuals to share their personal stories and allowed us to discuss ways to cultivate a more equitable, inclusive, and supportive culture in our labs. In feedback surveys, many expressed that the forums "increased empathy and awareness" and "helped people feel more connected within the department," especially during the pandemic. In Fall 2022, **I received the inaugural Department of Neurobiology Service Award** for my effort in creating Listening Labs. I will only continue to champion efforts around EDIB in my career as a professor by **providing a safe space for these vital discussions and cultivating a supportive academic environment for students of all backgrounds**.

Breaking Down Barriers To Student Success

Having worked with students with disabilities, I have learned the importance of **taking the time to understand each individual's unique learning needs in order to best support their success in the classroom**. One semester, I had the privilege of working with a student in a wheelchair, who had been paralyzed from his neck down in his freshman year opening football game. In fact, he was interested in our class *Artificial and Natural Intelligence* precisely because of his injury:

I think that this class would be great for me because I am a quadriplegic paralyzed from the neck down and have to use all kinds of different technologies to complete schoolwork [...]

I immediately asked what kinds of accommodations he needed to succeed in our course. He requested a space big enough for his wheelchair, and mentioned that his voice was not very loud because of his ventilator. I set him up in a dedicated corner of the lecture hall and assigned him to a section group that was smaller so that he could be heard when participating in discussions. The student thanked me for my quick attention to his needs and ended up performing in the top 5% of the course.

Yet, not all disabilities are visible. As someone living with an invisible chronic illness myself, I know firsthand how difficult it can be to ask for extensions on assignments or to register for academic accommodations. Knowing this, **I have encouraged students to register with the Disability Access Office (DAO)**, letting them know that they are entitled to their accommodations (by law) without having to let their professors know the specifics. Additionally, **I implement flexible course policies** such as providing students with free “late passes” on assignments in acknowledgement of the unpredictable life stresses that may impact students. In a recent course evaluation that asked whether the course late policy was fair, one student wrote:

Yes. I didn't end up using it myself but I appreciate that it existed, it made things less stressful and actually easier to get done on time because I didn't worry about being late.

Other simple ways that I strive to break barriers include making the requirements for success explicit in the syllabus at the start of the semester, providing an avenue for anonymous course feedback throughout the term, and emphasizing an attitude of learning and growth over a fixation on grades. **Still, some students, particularly those from underrepresented groups, may need extra help to succeed.** Research shows that many first-generation, veteran, and neurodivergent students (among others) are less likely than their peers to ask for help from their instructors (Clouder et al., 2020; Livingston et al., 2011; Pascarella et al., 2004). Because of this, I let students know early on in and throughout the course that they are free to approach me with concerns about burdens or factors outside the classroom that might be impacting their learning. To complement this, **I keep track of students that begin to fall behind on assignments and reach out to them individually** to see if and how we can assist them. In one instance, I helped a neurodivergent student sign up for accountability groups and register their disability with the DAO to get the appropriate accommodations. The student ultimately caught up with their work and expressed gratitude for my encouragement. In another instance, I laid out a concrete plan for a student to prioritize the most important aspects of the course while juggling a demanding home life as a young mother. In all instances, I still maintain and communicate high standards for my students while also making room for the necessary accommodations.

Whether mentees have invisible illnesses such as my own, or are from a marginalized or underrepresented group, I am committed to creating a classroom environment that shatters structural barriers and prioritizes learning for a more equitable academic community.

Increasing Access To Resources and Opportunities

Finally, I am committed to increasing access to resources and opportunities for students from historically marginalized and underrepresented populations. Currently, I do this through three main avenues: (1) research mentoring, (2) academic advising, and (3) educational outreach.

Research Mentoring

Issues of equity are especially important to me as a woman in a male-dominated, computational field. I **advocate for the intentional diversification of student and faculty bodies** to establish a more supportive environment for women and minority students to thrive. To this end, I have (until very recently) chosen to only advise female students on research projects as a deliberate way to gender-balance the lab. **As a result, I**

have mentored 6 female students over the last 4 years. For many of them, this is their first experience conducting scientific research, and I work hard to provide them a successful and productive research experience that encourages them to stay in science. So far, 1 has co-first-authored a paper with me and 2 more are on track to be my co-authors on another paper. One has successfully been admitted to top neuroscience PhD programs, and 2 high school students who I supported with recommendation letters have gone on to study computer science and neuroscience at top-tier universities.

Academic Advising & Mentoring

I believe the role of an academic mentor is to equip mentees with the resources necessary to succeed and the agency to make their own decisions. Through my role as a Harvard College Resident Tutor, I have had the immense privilege of being the primary academic advisor for 13 second-year students, and a consistent resource for an additional 40 students who were/are residents in my dorm entryway. Students come from an incredibly diverse range of racial/ethnic groups, nationalities, and religions. Additionally, there are members of the LGBTQIA+ community, first-generation and low-income students, and all the combinatorial intersections of these identities. As a Tutor serving an incredibly diverse student population, I have quickly learned the importance of knowing where to point students when I may not have all the answers.

One of my first-generation mentees often came to me seeking advice on navigating college: how to email professors, find research opportunities, and explore career options. While I tried my best to demystify the “hidden curriculum” of higher education, it was also important to **teach him how to access the wealth of specialized resources at Harvard himself**, such as the Office of Career Services and the Office of Undergraduate Research. Equipped with this meta-skill, he ultimately figured out many things without my help, from securing an internship in Portugal to accessing financial aid funds for a laptop and winter coat.

Another mentee, who is both neurodiverse and genderqueer, was struggling in their classes. They confided in me about the fear of changing their pronouns and going on medication for their ADHD. In our meetings, I **frequently affirmed their identity and normalized help-seeking** as a way to clear their barriers to learning. I showed them how to officially register their pronouns in the student portal and together, we devised a plan for them to receive academic accommodations. A semester later, the student thanked me for my encouragement and support, and had done considerably well in all their classes. They had also begun seeing a psychiatrist at the campus health center, a decision they made entirely on their own.

These are just two of many examples that show the impact of my academic mentorship for underrepresented students. I have found that simply making myself accessible and knowing broadly where to refer students can go a long way in empowering marginalized individuals.

Educational Outreach

It is commonly known that the dropout of underrepresented groups in STEM begins much earlier than college (Contreras, 2011; Mau & Li, 2018; Valla & Williams, 2012). Upon learning this fact 8 years ago, I was galvanized to participate in educational outreach initiatives targeting high school and middle school students in local underresourced areas. As a college sophomore, I **began teaching science lessons at BrainSTEM**, an after-school neuroscience education program in an underprivileged neighborhood of Houston, TX. Every week for two years, I mentored a group of high school students through a fun and interactive lesson, with topics ranging from synaptic transmission to cognition. This work continued after I moved to Boston for graduate school, where I joined **HPREP**, a program that pairs underrepresented students from local schools with Harvard student mentors. **Through HPREP, I ended up mentoring an undocumented student** for 2.5 months. Each week, we would meet for 1.5 hours to discuss her career goals, edit her college applications, and put together a final presentation on a scientific topic of her interest. She ended up applying and being admitted to top liberal arts schools like Wellesley and Smith College. I have continued to follow up with her

every year since, providing myself as a resource if she ever needs it. By catching them early in their academic trajectory, we can empower underrepresented students with limited access to educational opportunities and help them realize their full potential.

Looking Ahead

As a Teaching Professor at UCSD, I will continue cultivating learning environments where *all* students feel included and motivated. In working towards this goal, **I am committed to continually learning about evidence-based, inclusive practices and incorporating them into my classroom and academic environment.** As a faculty member, I am eager to help with or propose new research initiatives targeting minority undergraduates, such as the MARC program, as well as collaborating with local institutions that serve diverse and non-traditional student populations, such as SDSU and San Diego City College. I will also continue mentoring underrepresented students by inviting them to conduct research with me and engaging in local educational outreach programs such as BioEASI and UCSD Neuroscience Outreach. Finally, I commit myself to attend relevant trainings on EDIB throughout my career to further educate myself and become a better ally. I am confident that UCSD, with its large and diverse student population, will be an excellent place for me to continue this growth.

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