My life and career have involved a decades-long commitment to social justice, operating on the basic principle that in our society, while talent is evenly distributed across racial, socio-economic, gender and able-bodied lines, opportunity is not – and that is a core problem that we should all be working to address. The Science and Engineering Equal Opportunities Act was signed into US law in 1980, more than a generation ago, stating "it is in the national interest to promote the full use of human resources in science and engineering and to insure the full development and use of the scientific and engineering talents and skills of men and women, equally, of all ethnic, racial, and economic backgrounds" [1], yet women and people of color are still substantially underrepresented, underemployed or underpaid, in STEM fields. In other words, when we look at the data and listen to experiences, we have clear evidence that the needle hasn't moved proportionally to the amount of resources we say we are using to address these problems. What's more, efforts to directly address opportunity gaps and systemic bias have more and more commonly been resisted by openly white supremist, white nationalist and violent political ideals, seeking to erase the contributions of non-white members of society and to turn a blind eye towards injustice.

Friends, family and scientific colleagues often ask me why I want to be a professor. The answer is two parts: 1) working with young people has always been the key to improving the planet for those who come after us, and 2) universities are often hotbeds of critical thinking and a productive convergence of diverse perspectives from which I can learn and sharpen my own perspectives. Much of my career has been spent working early in the so-called "pipeline". As an undergrad I volunteered for and subsequently coordinated a mentoring and leadership program at an innovative, diverse high school in Providence, RI founded on the idea of teaching through internships. After graduation I worked with at-risk and adjudicated youth in Utah and South Carolina, and then spent six years as a high-school teacher in San Francisco area schools that dominantly served historically marginalized populations, including four years at Summit in Redwood City, a high school with a diverse student body including 43% Latinx students and students from a spectrum of socio-economic backgrounds that operated within a consensus-driven decision-making structure. At this school we prided ourselves on our 96% graduation rate, while perhaps dedicating the most time to working with the 4%.

Since I switched gears into scientific research I have striven to continue to provide opportunities for people of all walks of life to connect to science. **For instance, in 2015 I founded, coordinated, and now have passed on to new leadership a mentoring program between Salinas High School and Hopkins Marine Station**. In this program we paired nearly 30 students, mostly from historically marginalized populations, with active researchers in semester-long internships in an attempt to open a door where students may not have known one existed. To bolster this program, in December 2020 I ran a pro bono "tag tools" workshop that raised more than $8000 to offer stipends to student interns so that missed work opportunities would not be a barrier for future student participation.

In the classroom it is particularly critical to teach with a lens of cultural competence and equity. When they work as intended, undergraduate classes can be launch pads for individuals who have not before been exposed to a topic. Indeed, inspiring teachers have been the impetus for many scientific journeys, including my own**.** My teaching style is characterized by differentiated and rigorous instruction that seeks to meet students where they are and hold them to high standards, while at the same time capitalizing on the multiple intelligences that each student brings to the classroom. This manifests in my teaching in a number of ways, including by capitalizing on and valuing existing student assets, and facilitating access to science. When I teach classes with a large proportion of bilingual and bi-national students, for instance, it can be beneficial to recognize that many students are in great positions to navigate both international and community-based projects with care and awareness of local issues. I strive to utilize and highlight bilingualism and multiculturalism in science, and typically invite a diverse suite of

guest lecturers into the classroom (which could be via video or other curricular choices) to draw attention to a variety of pathways into the field. At the same time, it is crucial to recognize some of the barriers that students may face in the classroom, particularly for field classes that require extra time commitments and potentially unfamiliar skill sets but that have the potential to narrow demographic experience gaps [2]. Students with second jobs or family/parental commitments may not be able to participate in commitments outside of standard class time, so part of even advertising field classes should be to ensure that childcare and scholarship opportunities are available and accessible for potential students. Additionally, in Academia (big-A) we tend to value and reward quantifiable, actionable ideas, including for DEI initiatives, and this can help us ensure that we are following through and achieving our goals. However, some of the most important DEI work comes from utilizing, recognizing and disseminating so-called "soft skills"—making people feel comfortable, heard and welcome in what can be unfamiliar environments. In my time as a field and outdoor educator I have worked to refine these skills, introducing hundreds of people of all ages and backgrounds to some aspect of the outdoors. I've helped kids who had never been outside of their own city to enjoy camping in the rain, and I've counseled young women uncomfortable menstruating while backpacking through best practices I learned from my colleagues. In my scientific career, this has manifested as a willingness to overcome barriers for my students and coworkers.

If offered the position, I would strive to mobilize resources to directly address the long-ago formulated goals of the Science and Engineering Equal Opportunities Act. Fadeyi et al. outline several critical, actionable steps that universities and faculty can take immediately. While the most critical need is diversifying faculty, there is also a critical need for white people like myself to push against the status quo, since "it is unfair to ask people of color to shoulder the workload in dismantling the system" that was built with structural inequities by white people. It is also my responsibility to fight against the inertia of homophily by directly working to increase diversity during future student and faculty recruitment within the department and the university at large.

On a final note, as an able-bodied, cis-gendered white male, perhaps the most meaningful DEI statement I can make is to affirm my sustained commitment to continuing to learn about and address the institutional and personal challenges faced by historically marginalized communities. I am committed to analyzing my own biases, working as an active listener, and learning from voices who speak of experiences unfamiliar to myself. Overall, considering that universities and our societal structures are under fire from those with power for even using terms like "diversity", it is more important than ever to fight for fair and just societies within and outside of academia. The last few years have brought a deluge of changes and challenges to our society, with unanticipated consequences for the new cohorts of students matriculating over the next few years. The diversity of my experiences, working with different audiences and with diverse teaching modalities, has prepared me to pivot on the fly when I work with new groups to address their own unique needs and challenges. It will be more important than ever over the coming years to be responsive and dynamic, and I am committed to continually evolving and refining my practice when I face each unique situation.

References

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