

## **STATEMENT OF CONTRIBUTIONS AND PLANS TO ENHANCE DIVERSITY**

### **My Personal Experiences**

As a female engineer, I know firsthand what it's like to look around in a class of 200 students and realize that I am the only woman. It was an isolating feeling that was made worse by the fact that I didn't have a female professor until my third year. I joined a Neuroscience program for graduate school and still there were few female Principal Investigators, despite the fact that the undergraduate program was approximately 50/50. Now as a postdoc, I am again one of few women at this level. When I joined the Weber lab, I was immediately told by female graduate students how excited they were to have a female postdoc to look up to. I was thrilled to serve as a role model, and I strive to continue to do that as I move forward in my academic journey. I have been told on countless occasions that I "don't look like an engineer" or that I "don't look smart". As a first-generation BSc and PhD, hearing these comments facilitated my impostor syndrome. I want to change how people think an engineer or scientist "should" look, because every little girl deserves to grow up thinking they can do what they want with confidence. I also know that my own experiences do not compare to those of other minorities, especially women of color. I have benefited from my privilege and am working to acknowledge my privileges and biases so that I can continue to grow into a better ally and role model.

### **My Current Contributions to Enhancing Diversity, Inclusion, and Equity**

I have been involved in outreach efforts since my undergraduate studies through DiscoverE at the University of Alberta, Canada. DiscoverE is an initiative of the Faculty of Engineering aiming to inspire and engage youth in STEM through workshops and camps, many of which were delivered to Aboriginal communities in rural Alberta and the Northwest Territories. I started volunteering with DiscoverE's Girls Engineering Mentorship (GEM) Club as a mentor from 2009-2011 (4 terms). In the summer of 2011, I was hired as an instructor for in-classroom workshops and camps. That fall, I worked as the GEM Club coordinator and led a team of 11 volunteers. Since then, each year I have volunteered as a guest mentor where I discuss a different topic related to my research.

Early last year, the research teams at the Rehab Neural Engineering Labs at the University of Pittsburgh started several DEI initiatives in response to the murder of George Floyd and the ensuing protests in Pittsburgh and around the world. Our team, driven by a shared passion to address inequities and injustice head-on, looked inward and identified a critical lack of diversity in our labs, our departments, and across STEM. We formed 6 sub-committees, 3 of which I am an active member of: Youth Outreach, Undergraduate Outreach, and Funding. I was the leading organizer for the Youth Outreach initiative until this past Fall. We have developed relationships with several public schools around Pittsburgh, including those in primarily Black neighborhoods. I developed a curriculum to teach programming skills using Python to young adults (18-24 years old) at a local group housing center, which started in March. This workshop provided concrete skills that they can take into the workforce. We also plan to have students come to the labs for field trips, host high school students for internships, and go to classrooms with demos and workshops. The Undergraduate Outreach initiative aims to increase minority representation in graduate school through recruitment. We designed training workshops to better structure the mentorship of

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undergraduate students. Our outreach initiatives are ambitious and require funding to support workshop and training supplies. We recently received funding from the Pitt Year of Engagement to support our outreach efforts. I wrote a majority of the grant alongside a graduate student and faculty member. We were awarded \$16,000, the maximum amount, which also included matching funds from the Department of Physical Medicine and Rehabilitation.

As a member of the CMU academic community, I am continuing my efforts as a member of the Mechanical Engineering DEI Taskforce and Mentorship and Outreach subcommittees (I am the Chair of the Outreach subcommittee). This is a brand-new initiative, and I am contributing to the development of the goals and initiatives from the ground up, just as I had at Pitt. The Outreach subcommittee has kickstarted the MEOS (Mechanical Engineering Outreach Stars) Program, which uses a tiered system to reward and incentivize participation in outreach, especially to underserved populations. The goal of the Mentorship subcommittee is to pinpoint existing barriers for retention of minorities in STEM, and to present recommendations for resources that the Department or School can provide to support current students, postdocs, staff, and faculty. We created a professional development seminar series. The first seminar is on Networking; I used my own network to find 2 of the 4 panelists for the seminar.

### **My Future Plans for Contributions to Enhancing Diversity, Inclusion, and Equity**

I will build on my past and current efforts to enhance DEI. Specifically, in my lab, I will recruit a diverse group of undergraduate and graduate students, postdocs, and staff. I will be particularly mindful of how privilege and access to resources can impact typical performance measures such as GPA and research experience. I myself had several part-time jobs during my undergrad and an additional summer job while I was an undergraduate research assistant. I will continue to actively participate in DEI seminars and workshops and encourage my lab members to do the same. I will expect all my lab members to contribute to at least one DEI initiative as a part of their training and effort because ongoing work to enhance and maintain DEI in academia is essential. Such initiatives will include hosting grade school students for lab tours and high school students for summer internships. I will seek funding (such as NSF) to support these efforts, leveraging my experience obtaining funding from the Pitt Year of Engagement.

In my classroom, I will be as available as possible to students, and outline my availability in the syllabus. I will be flexible and empathetic to students' circumstances and needs. I will provide the students with information on resources for those who may require assistance due to disabilities or hardships, and state outright that I am available to discuss accommodations as needed. I will work hard to learn and to pronounce students' names. In the first class, I will state my preferred pronoun, signaling that my classroom is a safe space for members of the LGBTQ community. I will also make it clear that there is zero tolerance for bullying, exclusion, or harassment.

I will seek out collaborations within the Department of Biomedical Engineering, as well as other departments, ultimately building a network of researchers from diverse scientific and personal backgrounds. A team of diverse collaborators will not only enhance the research and scientific contributions, but also allow students and postdocs to build a diverse network of mentors and peers.