Fumeng Yang | Diversity, Equity, and Inclusion Statement

Throughout my academic journey, I have shared classrooms with sons of farmers who could not afford winter shoes, worked with young fathers juggling part-time jobs to support their children, seen LGBTQ+ students dropping out due to off-campus discrimination, and attended classes where I was the only female student. Each of these experiences has not only deepened my empathy but also broadened my understanding of the challenges that diverse individuals face in the realm of academia. These moments serve as the cornerstone of my deep commitment to fostering an inclusive environment where everyone has an equal opportunity to flourish.

Promoting Women in Science

I had often heard that women are significantly underrepresented in STEM, but this reality didn't truly resonate with me until I was immersed in it, finding myself as the only female student in a computer science class of twenty for an entire semester. While I was fortunate to have the support of my male advisors and mentors, the absence of a female role model was felt deeply. This led me to the question: Is it essential for women to have same-gender role models in order to progress? Determined, I chose to become the role model I had yearned for. In most of my early publications, I was often the only woman on the author list, often taking the lead. As I progressed, I consciously made efforts to integrate and uplift female students in both coursework and research projects. During my postdoc, I proudly led a diverse team of ten authors—six of whom are women—to win a best paper award at the IEEE VIS conference. I also formally and informally mentored four female students at Northwestern and encouraged them to present at top-tier conferences. Recently, it was with great pride that I learned some young female researchers have come to see me as their role model. As I transition into a faculty role, my commitment remains unchanged. I will continuously promote women in science, push female students to take on leadership roles, and offer them unwavering support in my mentorship.

Broadening Participation

Beyond advocating for gender parity, my commitment to diversity, equity, and inclusion extends to various dimensions. From 2017 to 2020, I served on the organizing committee for the IEEE VIS conference and led the Student Volunteer program. My co-chairs and I received hundreds of applications from individuals varying widely in gender, age, race, sexuality, nationality, language, academic seniority, religious beliefs, and more. Observing biases in the existing selection algorithm, I worked with my co-chairs and redesigned the algorithm to improve diversity. Beyond equal consideration of academic metrics, I also incorporated societal activities and past experiences into the algorithm. Our newly designed algorithm promoted representation by ensuring balanced participation across research groups, institutions, and countries; it set a minimum threshold for female representation and dedicated 10% of selections specifically towards fostering diversity and inclusion. Yet, managing such a diverse group to support the conference was extremely challenging. We had to navigate cultural and linguistic differences (e.g., different variations of English, German, Chinese, French, and Japanese). To foster trust and friendship among students, my co-chairs and I organized a series of ice-breakers and social events. Over three years, we facilitated the participation of hundreds of students from six continents, 20 countries, and 80 institutions. Looking ahead, as faculty, I will remain committed to widening the avenues for participation at both the university and community levels.

Relevant Research

True commitments to diversity, equity, and inclusion in research require considerations and actions at every stage, from topic selection to results sharing. When serving as a teaching assistant for *CSCI2370 Interdisciplinary Scientific Visualization* at Brown University, I helped with a student's course project that aimed to help transgender individuals practice their speeches to match their gender identities. Additionally, my co-instructed conference course, *Transparent Practices for Quantitative Empirical Research*, is partly designed to break the barriers in results sharing. In the future, I also plan to explore haptic interfaces for low-vision individuals, as visual computing so far primarily caters to sighted individuals. I am also interested in identifying and rectifying biases in deployed predictive models to reduce societal inequities.

Commitment

I am committed to creating a welcoming and supportive environment for students and scholars from all walks of life. As a faculty member, I will pledge to help, guide, and mentor a diverse range of students, striving to foster an inclusive culture in my research group and beyond. I will remain mindful of unconscious bias, offer mentorship to students from underrepresented groups, and help them build their own supportive communities. In turn, they will help me achieve my overarching goals: igniting creativity, advancing science, and forging impactful knowledge.