

Revolutionary innovation is more likely to occur when diverse perspectives come together to build unique solutions. I have received two awards—Stanford’s 2023 Community Impact Award and Stanford’s Computer Science 2023 Student Services Award—for the time and effort I have put into broadening participation and promoting diversity across the academic community. My efforts include mentoring and publishing with eight diverse undergraduate and masters students, as well as leading Stanford’s Computer Science Ph.D. applicant support program to promote diversity in Ph.D. applications.

Promoting Diversity and Participation in Research. I have helped eight undergraduate and M.S. students, including one gender non-binary and four female students, publish in computer networking and security. My mentees have ranged from freshman to masters student, with 8/8 having never published before, 7/8 having no prior research experience, and 2/8 having never taken a computer networking class.

I consider the key to building a successful lab of diverse researchers is to shape projects around student’s personal and academic strengths. To accommodate young undergraduates looking to start research for the first time, I scope out easily-accessible project contributions (e.g., labeling data) that require little domain-specific knowledge while helping the student familiarize with the field. For more senior students, I am patient and spend time to understand how to translate one’s technical strengths and interests into strong researcher qualities. For example, I worked with a student who was a natural at thinking deeply about system architectures in the abstract, but disliked coding. I made sure the student led the scoping of research questions and evaluation of our system’s performance, while pairing them with another student who enjoyed coding. When pairing students, I remain cognizant of which students excel at working in teams, and which students prefer to work individually.

Ph.D. Applicant Support Program. Finding and recruiting a diverse and talented set of Ph.D. students must start before the Ph.D. admissions committee meeting. For over two years, I helped build and lead Stanford’s Computer Science Student Applicant Support Program. The program solicits drafts of materials from Ph.D. applicants who self-identify as low-income, first-generation, or underrepresented students, to provide early feedback on their application materials. Students can participate regardless of whether they intend to apply to Stanford. The goal of the program is to strengthen the framing of their applications such that their personal strengths and achievements are easily noticed. It also provides a strong pool of candidates to recruit from. As part of leading the program, I used my three year tenure as a student volunteer on the Ph.D. admissions committee to help mentor other Ph.D. students on how to provide useful application feedback.

Future Efforts. It is critical to me that my research lab remains gender, racial, and experience diverse. I keep in touch with many of my former students, of which three have expressed interest in pursuing a Ph.D. with me when I become faculty. I plan to recruit the students I have already worked with, while simultaneously finding a new diverse set of students. I plan to support (or start) a student applicant support program at my future institution to help strengthen applications and recruit early.