

As I reflect on my past, I feel grateful for the opportunity to have pursued scientific research. Having grown up in Henan, a less developed province in China, my dreams often seemed out of reach. I was surrounded by educational inequalities and understood the critical importance of access to top-tier education. Although I was fortunate enough to continue my educational journey, many of my peers were not as lucky, with some even having to halt their studies unexpectedly.

Upon arriving in the United States, I observed similar disparities in education. In the academic year 2021-2022, only 11% of graduate students at the University of Wisconsin-Madison (UW-Madison) were from underrepresented groups. This trend was mirrored at Carnegie Mellon University (CMU), where women made up only 38% of the graduate population. In my field of research, although AI is a popular subject, computer systems are often stereotyped as a male-dominated domain characterized by social isolation and a deep involvement in low-level coding and hacking. Consequently, one significant challenge faced by the computer systems community is the limited participation of women.

I am deeply committed to advancing equality and inclusivity within our educational system.

1 My Preparation: Diverse Education and Research Experiences

During my Ph.D. studies at UW-Madison and early career journey at CMU, I was immersed in a diverse environment. Faculty members from various parts of the world brought unique cultural, and academic perspectives. Yet, they all treated every student with respect and fairness, sharing their knowledge and advice generously. I collaborated with peers from countries such as India, Greece, South Korea, Israel, and the United States, each bringing our unique backgrounds to the table. These differences enriched our discussions on various research topics. Whenever I faced challenges in coursework or research, I turned to them for help. Our different backgrounds never impeded our teamwork; instead, they strengthened our bond and expanded my perspective.

In STEM fields, there is a noticeable disparity between the numbers of men and women researchers. At UW-Madison and CMU, I had the opportunity to collaborate with several women students. I directly mentored three women researchers: Heather Jia, an undergraduate at UW-Madison now pursuing her Ph.D. there; Rulin Shao, formerly a Master's student at CMU, now a Ph.D. candidate at the University of Washington's CSE department; and Jinyu Hou, a Master's student at CMU currently under my mentorship. Their poise, resilience, and positive approach during research presentations and discussions have left an indelible mark on me. Their contributions extend beyond top-tier research; they underscore the importance of maintaining a positive and approachable attitude. I hold their contributions to the STEM field in high regard.

During my internships at IBM Research and Microsoft, my managers, Dr. Yasaman Khazaeni and Dr. Yuxiong He, were both women. Their insights into AI, ML, and systems – both in research and product development – coupled with their effective management, have been a source of inspiration and learning for me.

2 Future Strategy

Promoting diversity in STEM is crucial, based on my experiences. As a faculty member, I aim to champion diversity and amplify its importance in the academic community using the following strategies:

- I aim to recruit undergraduate and graduate students from diverse backgrounds into my research group.
- I will engage in outreach programs to attract students from diverse backgrounds and underrepresented groups to STEM disciplines and encourage them to pursue graduate studies.
- I plan to participate in our university's diversity, equity, and inclusion (DEI) committees and initiatives.
- Recognizing the availability of scholarship programs from companies like Microsoft and Google, as well as the EECS Rising Star programs organized by several universities for students from underrepresented groups, I will actively guide and encourage eligible students to apply.
- I intend to serve as a faculty mentor in summer research programs designed primarily for K-12 students to foster interest, especially among those from underrepresented groups, in the STEM field.
- Finally, I plan to establish an annual event to celebrate the achievements of diverse students in our department. I envision that this event can inspire and reassure prospective students, highlighting the potential of their academic journey.