

Diversity Statement

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Overview

I am committed to improving Diversity, Equity, and Inclusion in computing. My passion for the cause is rooted in my personal experience and highlighted by my record through graduate school. From my days as an international undergraduate student to now, my journey has been supported by mentors and diligent instructors who helped me stay and thrive in a discipline that notably lacks black female participants. From my experience as a student leader for Aggie Women in Computer Science (AWICS), a curriculum developer for AI4ALL, and a graduate student mentor for twenty plus students from various backgrounds, I have solidified my commitment to creating inclusive spaces in computing. I seek opportunities to build on my experiences and play a leading role in creating inclusive spaces in computing.

Personal Experience

I am a prime beneficiary of efforts made to broaden participation in computing. As an undergraduate student, I received my first research experience opportunity through CRA-W's Distributed Research Experiences for Undergraduates (DREU). That summer, I co-authored a paper with a senior Ph.D. student, which unlocked my research interest. Early in my graduate school career, I was selected to attend Grad Cohort for Women and IDEALS and received advice on graduate school survival skills from leaders in academia and industry. The mentoring and encouragement from these workshops anchored me in the field and helped me overcome imposter syndrome. At Texas AM, I benefited from the department's efforts to foster student community. Through the ACM-W's chapter, Aggie Women In Computer Science (AWICS), I received invaluable advice from peers who had trod the path I was embarking on, especially about student life and time management.

My Record

I have been fortunate to be in a lab that prioritizes undergraduate research and broadening participation in computing (BPC). Throughout my doctoral studies, I have had opportunities to mentor **twenty-four** graduate, undergraduate, and high school students, often by partnering with BPC programs to mentor students in the Distributed Research Experiences for Undergraduates (DREU) program and Clare Booth Luce research scholars. The students assisted me in implementing most of the algorithms that contributed to my dissertation and got published in top-tier robotics venues like the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS'22) and ACM's International Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB'20). Five out of fourteen undergraduate students have pursued higher education upon graduation. Figure 1 highlights some notable moments with undergraduate research students I have mentored.

In addition to research mentoring, I served as a conference table mentor twice in the Robot Guru workshops. These were opportunities to motivate undergraduate students to pursue graduate school in robotics by giving them early experience with robotics projects. The group that I worked with in 2018 at the Workshop on the Algorithmic Foundation of Robotics (WAFR), were undergraduate students from Universidad Politécnica



Figure 1: Experience mentoring students: (a) DREU students Regina Rex and Abigail Ren received the best poster presentation award at the 2019 UIUC Undergraduate Research Symposium. (b) Undergraduate mentee Ananya Yammanuru presented our paper at IROS 2022, Kyoto, Japan.

de Yucatán (Mexico) and they all enrolled in a research course the following semester to build algorithms for mobile and underwater robots. Although I was mentoring them from a distance, the experience made me realize the impact of a mentor in engineering disciplines.

When I became president of AWICS, I worked with my committee to create the Rubies peer mentoring program that matches first-year female students at undergraduate and graduate levels with more seasoned students to help them navigate college life. In addition, we organized professional development events in which we invited women from academia and industry to share their experiences and empower us. This experience has taught me the value of paying it forward and being a role model to others. In Figure 2 are excerpts from my time with the AWICS.



Figure 2: Mentoring experiences: (a) With my cohort at the 2018 Robot Guru Workshop. (b) Welcoming new AWICS members, Fall 2017.

Future Plans

As a faculty candidate, I aspire to serve at institutions committed to increasing diversity, equity, and inclusion in computing. I plan to help undergraduate students by sharing resources and information on becoming STEM leaders through research and career-building experiences. Finally, I want to champion for and sponsor student organizations that aim to foster community among students from underrepresented groups in computing, by developing and supporting efforts to broaden participation in computing like CRA-W's DREU program.