Diversity Statement

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I feel grateful for my journey in research while recognizing the barriers many face in accessing education. Growing up in Delhi, India, I witnessed stark educational disparities firsthand - less than **10% of students in STEM classes were women** in my high school. This gender imbalance continued through my engineering undergraduate program, with only **4-5 female students in a class of 60**. Coming from a business family with no exposure to academia, I was unaware of research opportunities until the **Marconi Society's Celestini Project India** opened my eyes to the world of innovation. This transformative mentorship experience showed me that research wasn't just for those from academic backgrounds - it was for anyone with the passion to solve meaningful problems.

Research: Seven months into my PhD program at Maryland, the **COVID-19** pandemic struck. The shift to remote learning exposed the digital divide in College Park's neighboring communities, where many K-12 students couldn't complete basic homework due to lack of internet access. This motivated me to work on the **BRIDGE project**, where we transformed public parks into free internet zones using an innovative model - community institutions sharing their unused bandwidth with public spaces, making the solution sustainable and community-driven. Working with local organizations, we deployed robust WiFi infrastructure (Figure 1) that has directly **impacted over 1,000 residents**. It was deeply fulfilling to see students gathering in parks to complete homework and elderly residents connecting with family members showed me how technical expertise can build inclusive communities.

Figure 1: Installing **free WiFi** at Watkins Regional Park in **Covid-19**.

Service: Grateful for my own transformation through mentorship, I now serve as a mentor in the Celestini Project, helping undergraduates from underserved communities all over the globe develop technology solutions for social impact. As **Co-chair for the S3 Workshop at ACM MobiCom 2024**, I organized sessions that foster meaningful discussions on diversity in systems research. Our program included panels where researchers from diverse backgrounds share their journeys, Q&A sessions with early-career professors, and focused discussions on building equitable lab cultures. Through my service on various technical program committees - including SenSys, MobiCom, and MobiSys - I actively work to create inclusive spaces in our research community. My commitment to thorough and constructive peer review was recognized with the **Distinguished Artifact Reviewer Award at MobiSys 2024** (2 out of 43 reviewers), highlighting my detailed, objective feedback and active participation in online discussions.

Teaching and Mentoring: At Maryland's Bitcamp hackathon, I volunteer as a mentor in **BIPOC Research Trail**, an initiative designed to engage underrepresented students in computing research. The program provides hands-on research experience while connecting students with faculty mentors and like-minded peers, creating a supportive environment for their first steps into research. During **Maryland Day** every year, I demonstrate new sensing technology to K-12 students (Figure 2), making complex concepts accessible through interactive demonstrations. I also look forward to participating as a judge in the **Montgomery County Science Fair** each year, where I interact with K-12 students and their creative, novel science projects. My teaching efforts, recognized through the **Outstanding Teaching Assistant Award**, focus on creating inclusive environments where all students feel supported.

Figure 2: Teaching **sustainability** in computing to the next generation.

Future Plans: As a faculty member, I will establish concrete initiatives to expand access to computing research. I will create an inclusive lab environment with dedicated mentoring programs for first-generation and underrepresented students. I will develop research initiatives focused on technological equity, particularly targeting internet accessibility in underserved communities. I will implement a structured outreach program where graduate students and undergraduates mentor K-12 students through hands-on research projects, creating sustainable pathways for diversifying computing research.