Diversity Statement

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My commitment to encouraging diversity, equity, and inclusion in our community emits from my realization of the barriers that exist in higher studies. During my journey from a small-town high school student to a first-generation international graduate student at a public research university, I was fortunate enough to be inspired and guided by many altruistic role models. This showed me the importance of having a supportive and inclusive environment in higher education for students to achieve their full potential.

Transitioning from being a student to a researcher, or leaving home for a foreign country is a daunting task in and of itself. Being friends with students from Colombia, Ghana, Thailand, and South Korea, I learned about different socio-economic hurdles they had to overcome for a chance at higher studies. **Lack of information and accessibility** often makes it harder for under-represented groups (URG) to even take the first step towards it. The culture of inclusion during my Ph.D. has helped me identify the micro-aggressions and inequalities I witnessed growing up. During my undergraduate in Computer Science (CS), only 10% of our class were girls, along with only 3% of ethnic minorities. This gender inequality has emerged **either from the lack of female leaders in CS in Bangladesh or from the misinformed conception that CS is a difficult career to pursue. For the ethnic minority groups, the issue was the lack of preparation opportunities for the very competitive admission tests compared to the students in large cities.** Although the situation has improved, these numbers still necessitate conscious and assertive steps toward inclusiveness and diversity in higher education.

PAST ACTIVITIES. During my Ph.D., I have learned a lot about diversity and inclusion from my advisor who has been a great advocate for equity at Purdue University and in the Department of Computer Science. Having him as a mentor has helped me learn from him and participate in promoting diversity and inclusion.

***Promote Opportunity for All*:** During 8^{th} grade, I realized kids from my neighboring tenement home could not afford basic primary education due to their economic conditions. Being close to them, I started teaching them primary subjects for a year before I moved. Many of them have completed their college education now and still is in touch with me. During my bachelor's, I tutored a large number of students for college admissions in Engineering in remote areas of the city allowing them to have more time for preparation rather than travel.

***Collaborations beyond Borders*:** Collaborating with people from different countries such as the US, Panama, Ukraine, China, India, and Turkey and across multiple disciplines has broadened my view in terms of working style, personality, culture, and outlook. Paired with a senior colleague from Honduras with an extensive background in Software Engineering, I needed to adapt to engineering-heavy research. Successfully achieving that, we published the first paper for the REALM project while working with people from Boston, Indiana, and Turkey. I took the initiative to lead the paper and had to juggle between different timelines while traveling to Bangladesh. This led to multiple collaborations with a female colleague from Ukraine who have completed her Ph.D. and is working for Target now. After working through two successful publications, my collaborator from MIT has completed his Masters's degree and has returned to China as an Engineer.

***Access through Mentoring*:** As our research group harbors a culture of mentoring, I have had the opportunity to mentor **12 bright Masters and Bachelors** students from diverse backgrounds in **gender** (5 are female students), **race**, **geographical location** (including US, Turkey, India), and **universities** (MIT, Purdue, METU). Among the 6 master's students in the REALM project, **3 were female students** and one of them joined META in Spring'23. **The master's student from the Czech Republic** is working at WePay now as Software Engineer. He worked with me for developing a novel human attribute recognition model from texts. **One of the two undergraduate female students from Turkey has started her master's program in Germany.** My philosophy for mentoring is to equip students with the necessary tools to succeed, so they can continue on their own.

***Outreach*:** Besides my advisees, I have helped multiple students from URG communities and my alma mater to apply to graduate schools, including revising their application materials, suggesting research directions, preparing for interviews, etc. After my Ph.D. admission, I wrote blogs describing the application process and provided free access to the preparation materials.

***Teaching*:** Having taught large classes for a long time and on a variety of levels, I have slowly identified the biases and micro-aggressions that happen in a classroom. *Recognizing diversity can come in many forms such as recognizing different accents, genders, races, disabilities, mental issues, etc.* I have always tried to have an interactive classroom where everyone has a voice. Asking students about their understanding of the materials, or their well-being always makes them feel included, and as a teacher, we can improve and readjust. After knowing about the students' backgrounds and their goals in my courses, I was able to provide more relatable examples in the classroom. I have tried actively to identify my own cultural and educational biases so that it does not affect my class.

***Socially Impactful and Ethical Research*:** The primary goal of my research has always been to work on problems that have an impact on complex societal problems, for instance, *multimodal information retrieval* has been applied to finding missing persons or helping people with PTSD. We also explored identifying human anxiety or stress symptoms based on gait and emotion detection. *These have a direct implication on accommodating people with disabilities*. Furthermore, *identifying intrinsic and extrinsic domain complexity* before any large ML model is applied to new datasets can help reduce the hidden bias of the AI models.

FUTURE PLANS. My future plans for supporting diversity and inclusion are derived from my personal and peer experiences. Along with continuing my efforts from the past, I would take the following tangible steps to promote diversity, equity, and inclusion in the context of a new faculty member:

***Research*:** (1) Professors have a tendency of recruiting from their alma mater due to institutional or affinity bias. My goal is to recruit capable students from all over the world, especially from under-represented countries. (2) Practising and promoting a growth-based peer-to-peer relationship among the mentees. Interaction among group members would be of continual learning, rather than competition. (3) Providing support and fair access to all students for traveling to conferences so everyone can gain experiences. (4) Continue my research on societal problems that impose hindrances to an inclusive and supportive environment in education and society as a whole. I aim to understand the complex patterns in multi-modal data while avoiding hidden bias in the decision-making process. (5) Continue working for promoting diversity and inclusion in database and ML conferences such as SIGMOD, VLDB, AAAI, ECML, etc.

***Teaching*:** (1) Promote an environment that ensures equity and inclusion in my classes. Every student should feel belongingness and I would make sure that the classroom stays free from bias, stereotypes, or prejudices. Each student perceives lessons in different ways based on their backgrounds and allowing them to freely express that brings out their full potential. (2) Implement methods that promote student participation and a fair assessment of the class. I will also want to take frequent feedback from the students to ensure accountability on my part. (3) Build an interpersonal relationship with them through active participation in and outside of the classroom. They should feel at ease to share their concerns and needs. (4) Train the teaching assistants to practice diversity and inclusion in my classes. (5) Use of *inclusive language* in the classroom and in my teaching materials. (6) Keeping myself updated with relevant research literature and class etiquette. Since most of my expertise revolves around data management and machine learning, I would make the best effort to teach my students how to practice diversity, fairness, and inclusion in research and in life.

***Service*:** (1) Being part of the 'UNICEF Guardian Circle', or 'Save the Orphans', I have seen suffering children from all over the world. I would like to connect with them for the next phase of their development by introducing them to STEM. (2) Continuing my involvement with organizations that promote diversity in STEM fields: Diversity Institute, Hyland STEM Institute, Association for Women in Science (AWIS), etc. (3) Actively serving in *affinity group workshops* in Conferences such as NeurIPS to support under-represented groups.