

## Diversity Statement

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Growing up in a lower middle-class family in Bangladesh, my journey to where I am today has been shaped by the resilience, perseverance, and sacrifices of my parents. My sister and I are the first to continue our education beyond high school. This milestone has become a source of pride for our family and inspiration for our community's younger generation. Despite financial hardships, my parents prioritized our education above all else, even at the expense of personal pleasures and comforts, to provide us with the means to succeed. Witnessing their unwavering dedication planted in me a profound sense of gratitude, a deep respect for hard work, a never-ending thirst for knowledge, a drive to excel despite obstacles, a deep understanding of responsibility, and a relentless desire to succeed.

I received admission to Khulna University of Engineering and Technology (KUET), one of Bangladesh's most competitive and renowned universities. This experience positively impacted me, my family, and my communities. As a first-generation college student, I witnessed how education might widen one's perspective. Education breaks socio-economic boundaries and motivates people to reach goals bigger than their own.

My undergrad life was both challenging and rewarding for me. The robust Computer Science and Engineering (CSE) curriculum tested my resolve. However, through persistence and determination, I managed to overcome these obstacles. Gradually, I excel in the classroom and look for opportunities to lead and make an impact outside the classroom. Over time, I also enjoyed mentoring and motivating other people. I actively took on leadership roles in college groups such as HACK and Team Durbar. I demonstrated my natural leadership skills and desire to help others by mentoring peers, managing projects, and encouraging teamwork.

A pivotal moment in my academic journey came when Assistant Professor Jakaria Rabbi introduced me to the research world. His guidance and assistance gave me the confidence to explore new ideas and ask meaningful questions. Gradually, I saw the influence of my work, as my published papers received more than 130 citations. Hearing my peers say, "Your work inspired me to start a research," clicked me. It reinforced my belief that I could contribute meaningfully to the academic community and motivate others to do the same. Under the supervision of Professor M.M.A. Hashem, I worked on a collaborative project with OneBlood, a non-profit blood donation organization in the USA. We presented some of our findings at the 25th ICCIT conference. The positive feedback and engagement from the diverse community of attendees validated our work and inspired me to contribute more meaningfully. Each accomplishment has intensified my desire to exceed limitations and strive for excellence regardless of its extent.

Currently, as a lecturer at Southeast University, I strive to inspire my students to overcome barriers, embrace resilience, and aim high. Mentorship is a cornerstone of my teaching philosophy, a value that I carry forward from the superheroes of my undergraduate days from my parents, professors, and supervisors. My journey has taught me the importance of persistence, critical thinking, and the ability to find connections between concepts. These qualities have shaped me into a compassionate mentor and a determined individual committed to uplifting others while striving for excellence in my endeavors.

My background has given me a unique perspective on the transformative power of education and the importance of resilience. As someone who has overcome socio-economic challenges and thrived through mentorship and hard work, I am passionate about creating opportunities for others and fostering an inclusive academic community.

I want to inspire, promote inclusivity, and advance society through technology. My research has been exploratory. I have researched various topics for three years to find my passion: machine learning, deep learning, LLMs, and signals for medical and healthcare applications. My understanding of field challenges

and opportunities has grown with each exploration. This experience enhanced my technical skills and clarified my PhD research goals. My long-term goal is to promote learning, inclusivity, and resilience through technological innovation and academic excellence.

With the lessons from my journey, the mentorship I received, and the confidence built through my achievements, I am ready to contribute meaningfully to your PhD in Computer Science and Engineering program at the University of Texas at Arlington.