

DIVERSITY STATEMENT

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Kolkata, the city of my origin, is renowned for its dynamic cultural blend. Through time, I have come to realize the crucial role of support and outreach initiatives in fostering cultural inclusivity and promoting underrepresented groups' academic pursuits and research careers.

Growing up in India- Coming from a country that still grapples with social issues like illiteracy, poverty, unemployment, child labor, and social discrimination, I consider myself fortunate to have had a supportive family and a quality education. This realization has motivated me to dedicate myself to promoting diversity and inclusion in all aspects of life. During my schooling at *Ramakrishna Sarada Mission Sister Nivedita Girls School*, affiliated with Ramakrishna Mission, which has a long-standing history of serving people in need, I had the opportunity to interact with students from diverse ethnic and socioeconomic backgrounds. During my time as a volunteer for the *National Service Scheme* program, where I taught classes for underprivileged children in a village in India every weekend for two years, I witnessed firsthand the challenges faced by these communities. However, the experience also showed me how education can transform lives, and the joy of making a positive impact in someone's life is something I will always cherish. I will always remember the joyous moment when a bright-eyed fourth-grader I had taught called to thank me for helping her gain admission to college years later.

My time in the USA- Although the cultural and work environments in America may differ greatly from those in India, minority issues related to education and research still persist and take on various forms across societies. *Women pursuing STEM fields*, for instance, often find themselves in the minority. However, I was fortunate to have had the guidance of older female students and professors during my undergraduate and Masters studies at the Indian Institute of Technology (IIT). They encouraged interaction, created a conducive atmosphere for academic growth, and helped the new generation of students assimilate more quickly. Their support has left an indelible mark on me, and I hope to pay it forward by inspiring fairness and diversity in the future.

I earned my Ph.D. in Statistics from UC Davis and am currently a Postdoctoral Scholar at Pennsylvania State University, focusing on research and teaching. Both institutions have a welcoming and inclusive environment, especially for international students. They regularly hold academic and cultural events to encourage interaction and collaboration among students and faculty.

Teaching career and lateral learning- During my teaching career, I learned and grew alongside my students. One inspiring experience was teaching a student over several years, serving as both her TA and AI from 2018 to 2020. She initially struggled to keep up with the class and fit in with her peers, but with determination and extra help from my office hours, she improved with each course. It was rewarding to see her gain confidence and ultimately land a highly competitive Statistical Analyst position after graduating.

As an instructor and TA, I promoted diversity in the classroom by creating a moderated space for *peer discussions using Canvas and Piazza*, which received positive feedback. I made myself available to students for individual questions and worked with diverse backgrounds. I mentored four female undergraduates from diverse ethnic backgrounds in research, teaching them new concepts, programming, and data analysis techniques, and encouraged them to consider research as a career. I also directed them to campus support programs for minorities to aid in graduate school applications.

Academic participation- Growing up in a multicultural society and studying abroad in the US has shown me the importance of diversity in organizations. As an academic, I believe departments can promote cross-cultural understanding and mentorship opportunities. To help achieve this, I co-organized a weekly seminar with peers, allowing graduate students to broaden their knowledge beyond their areas of study. Additionally, I served as the student representative for the *Educational Policy and Curriculum Committee* for the UC Davis Department of Statistics from 2020 to 2022. Currently, in my postdoctoral career, I represent the *Climate and Diversity Committee* in the Department.

Future goals- My future goals and action plans to strive towards an inclusive and diverse climate include but are not limited to the following.

1. I aim to promote diversity and inclusivity in my undergraduate classroom by ensuring that *all students, regardless of their background, have the necessary resources to succeed*. As our field attracts students with varying levels of experience in coding and math, it is crucial to have a flexible course structure that supports *continuous feedback* from students. I will encourage this by having students share their confusion anonymously on index cards after each lecture, providing space for feedback on homework assignments, and establishing *mentorship programs that encourage traditionally underrepresented groups* to pursue higher education and research. Additionally, I will consider potential special needs or equipment concerns and proactively provide solutions in advance. As an instructor, I am committed to *creating an inclusive classroom* where all students feel comfortable participating in discussions.
2. For graduate students, I aim to prioritize diversity and inclusivity by *promoting wellness and a sense of community* within the department. As a research mentor, I will welcome students from diverse backgrounds, including those from different countries and cultures. Graduate programs can be mentally taxing, so I plan to expand existing wellness programs or initiate new ones to support mental health. To encourage student engagement, I propose organizing panels where professors share their own experiences on non-academic issues, like imposter syndrome or time management. Additionally, I aim to host optional small group meetings in comfortable locations like coffee shops to show students that we are invested in their success and well-being. Having been an international student myself, I understand how these events can create a welcoming and nurturing atmosphere for minorities.
3. *Collaborative interdisciplinary research* is essential for gaining a clear and scientific insight into the world. I aim to leverage my expertise in analyzing data of a complex nature to collaborate with neuroscientists and social scientists. For instance, I'll work on comprehending neuro-atypical brain functions through functional connectivity networks to advance our understanding of diseases like Alzheimer's and Parkinson's, leading to more targeted treatment approaches. Additionally, I'll use network modeling to explore the causal interactions in minority communities, such as LGBTQ+, to inform effective policy decisions. My commitment to a scientific understanding of data aligns with the research ethos of the Department.
4. To promote diversity and inclusivity in statistics outside of academia, I plan to participate in *outreach initiatives such as teaching summer programs and community courses* in topics like coding and biostatistics. Many high-school courses in these subjects can discourage students who don't excel in specific skills, so outreach programs can bring awareness to the power of Statistics and the necessity of evidence-driven decision-making, and inspire curiosity in local communities without the constraints of rigid assessments.
5. Integrating statistics into education is crucial for understanding and addressing societal issues like gender bias. Education, especially during student years, is pivotal in challenging stereotypes and biases. To *promote data literacy and prompt students to reevaluate their traditional beliefs*, I plan to employ statistical tools and methods. For example, using data from sources like Our World in Data, we can visually depict the extent of gender bias using introductory statistics techniques. In advanced courses, we can quantify the gender wage gap by accounting for confounding factors, such as years of work experience, through methods like causal research and generalized linear models.