

Diversity Statement

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Introduction and Motivation

For academic institutions to fulfill their mission to empower society, they must reflect the communities they serve. We must strive to create a research environment that welcomes and celebrates people of different races, genders, sexual orientations, religions, nationalities, cultures and ideologies. It is only by incorporating different perspectives and needs coming out the society that we can hope to build research products that serve everyone fairly.

The quest to create diverse communities goes beyond the recruitment of “different”-looking candidates. In addition to this, we must endeavor for “inclusion.” That is, the cultural and environmental aspects that determine whether members of a team feel that their unique qualities are accepted, welcomed and appreciated. Inclusion is what attracts future diverse talents and encourages their engagement.

There are consequences for the diversity gap in today’s education and technology. Diversity – or lack thereof – influences the types of problems we choose to work on and the solutions (algorithms) we propose. The lack of representation today means that tomorrow’s technology companies may not be generating the products that align with the needs of society’s demographics.

Acknowledging my Privileges

My journey to higher education has not always been the smoothest. I was born into a middle-class family and at times I witnessed my parents struggle to make ends meet. I was born and raised in a small city in Iran, with relatively limited access to quality education, which made it more difficult to get into a top university.

Any discussion of under-representation must begin with the recognition of our privileges, especially those over which we had little control. I was lucky enough to be born into a supportive family that cared about education and supported me throughout life’s ups and downs. I know that not everyone has access to a support system, as I have witnessed too many people lose their motivation due to lack of support. I was also fortunate enough to select the right field (AI research) at the right time and in the right place. I also acknowledge the potential benefits of being a fair skinned man in a society with a long history of discrimination based on race or gender.

The Representation Problem in Computer Science

My first exposure to computers was at home when I was young. Later, this became an attraction in high school, where I was lucky to have dedicated and kind-hearted computer teachers. Contrary to my great fortune, many students, particularly students from underrepresented groups – including girls, Blacks and Hispanics – miss such opportunities.

Only by being born into a certain community, people face a variety of *structural* and *social* barriers to get an exposure to computers and receive an education in CS. For instance, a [2016 Gallup report](#) indicates that Black students are less likely than White students to have classes dedicated to CS at the school they

attend (47% vs. 58%, respectively).

Unfortunately, the lack of representation creates a cycle that perpetuates bias and creates more social barriers. Gallup's article reports that male students are more likely than female students to be told by a parent that they would be good at CS (46% vs. 27%). Another study predicts that it may take more than a century for the number of male and female authors of CS papers to be roughly equal (Wang et al., 2019).

The Past Efforts

Part of the progress must be internal, through our self-education and examining our biases. One of my most rewarding experiences in graduate school was my participation in a [group](#) dedicated to the discussion of bias-related issues. Such a group provided a safe space for conversations about discrimination and helped to improve our internal understanding of our unconscious prejudices.

As a CS academic, it is important to give back to our community. For a number of semesters I volunteered with [student groups](#) dedicated to teaching basic CS to high school students. This is of extra importance in cities such as Philadelphia, which suffer from enormous social and economic inequality. However small the contributions were, my hope is that these students will build on what they have learned in these classes to help create a prosperous future for themselves and their communities.

The Road Ahead

To bridge the diversity gap, educational institutions need to make CS more accessible and engaging to everyone regardless of their background or financial status. Everyone should have fair access to education (especially AI and NLP education). I am committed to ensuring that we create research environments that welcome all backgrounds, especially those that have historically been denied.

I am encouraged to see our collective awareness of diversity and inclusion grow. In the coming years, I would like to show my commitment to this goal by incorporating it in different aspects of my work. I am committed to making sure that our research continues to study the unintended consequence of computer algorithms in perpetuating bias and suppressing *diversity of perspectives* (Chen et al., 2019).

I am committed to ensuring that our educational environments provide safe spaces for everyone, especially minorities and under-represented groups, to express themselves. An encouraging environment for exchanging ideas and sharing experiences is essential for a system that motivates growing talents.

Last but not least, the quest for more diversity and inclusion is not a sprint, but a marathon. Maintaining these values requires significant effort and diligence, as they are often endangered by many factors. We must actively rethink our advocacy, and move our goal posts as we make further progress.

References

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