Freda Shi: Equity, Diversity and Inclusion Statement

I believe that the science community should include, welcome and support people from all backgrounds. This includes not only encouraging everyone to pursue a career as they desire, but also developing technologies that are fair, general, and capable of serving everyone. To this end, I have been contributing to improving equity, diversity and inclusion (EDI) through both community engagement and research impact. Below I will describe my past experience and vision for the future.

Past Experience

My concerns about the diversity and inclusion in the computing community began as early as in high school. At that time, I participated in the Chinese National Olympiad in Informatics, and was surprised to find that I was the only female member of the 12-student Hebei Province team—gender stereotypes about computer science and engineering abilities prevented many talented girls from giving it an attempt. The impact of such gender stereotypes is pervasive and could be life-changing. With this in mind, I have always been encouraging younger students from underrepresented groups who are interested in computer science, through personal communications and by sharing my own experience, to pursue what they like.

In 2020, I initiated a mentor office-hours program on a voluntary basis for junior students from underrepresented groups. The program involves one-on-one mentoring sessions, where they get a chance to gain exposure to my research, brainstorm research ideas with me, and receive feedback on their graduate school application materials. So far, I have helped over ten students from all over the world, and I am happy to learn that they all find the program helpful and make progress in their careers. Whenever my colleagues and friends ask me how they can contribute to promoting diversity in our field, I always encourage them to take on similar initiatives, as I firmly believe our efforts can make a difference.

I have also served as a co-chair of the Women at TTIC group and of the UChicago Graduate Women in Computer Science group. The major goal of both groups is to support and advocate for female-identifying graduate students. To achieve this goal, I, together with other co-chairs, organize social events and distribute information about resources and opportunities for group members. By doing so, we strengthen the bonding between PhD students and faculty, and shape an inclusive environment where everyone can thrive.

Research Impact

A major part of my research is creating natural language processing (NLP) systems that can work equally well for all languages, which is highly aligned with the spirit of EDI. Specifically, I have developed cross-lingual transferring [SGL, ACL’22] and data augmentation [SLG, ACL Findings’21] techniques to improve the performance of language understanding with very few labeled examples. My research can be incorporated into real-life products to serve people who speak low-resource languages, and has the potential to help rescue endangered languages. In addition, these techniques can equip small businesses with the ability to run powerful algorithms, through lowering the barriers to adopt deep learning–based NLP systems.

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1A programming competition focusing on the implementation of algorithms and data structures.
Future Plans

In the future, I envision myself to continue working towards improving the diversity of the community as a faculty member, with special attention to the following aspects:

- **Recruit, collaborate with, and support students from various backgrounds.** I will encourage all students to apply to graduate schools and join my lab, especially those from traditionally underrepresented groups. Meanwhile, I will create and provide internship and collaboration opportunities for undergraduate students from different backgrounds to work together on research projects, so that they can learn from each other and grow together. I am also willing to support and advise underrepresented student groups.

- **Educate and advocate for EDI.** I will incorporate materials relevant to EDI, such as the de-biasing techniques for word representations [1, *inter alia*], into my teaching. In addition, I will alert my students that NLP models may generate biased and harmful outputs, and encourage them to consider the potential risks of using such models.

- **Continue working on EDI-related techniques.** As mentioned earlier, I believe the modern computing techniques should be fair, general, and capable of serving everyone. To this end, I will keep working on developing NLP models that also works well for underrepresented languages. In addition to underrepresented written languages covered in my prior work [SZW, ACL’21; SLG, ACL Findings’21; SGL, ACL’22; SSFW+, ICLR’23], I will seek more collaborations with colleagues working on spoken and sign languages.

References


