

The field of computer science suffers from systematic barriers that get in the way of just and equitable outcomes. As a white male from a middle-class background, I acknowledge that many of these unjust and unfair factors have benefitted me – while harming many of my colleagues. I have made it a priority to use the privileges that I have to advocate for **just outcomes** and **systematic change**. I plan to continue and deepen this important work as a professor.

**Inclusive advising.** Broadening participation starts locally. During my PhD at University of Washington’s Paul G. Allen School for Computer Science & Engineering, I made it a focus to recruit undergraduate researchers broadly, and to nurture their abilities at their pace. I advised six undergraduates and one high schooler on research: five of whom were women, and four of whom were of color. Through my advising, several of these students published top-tier conference papers.

As an advisor, I want to enable all my students to be able to envision themselves as computer scientists, in a way that is compatible with their identities outside the classroom [8]. I take an assets-based approach towards this goal [10], recognizing students’ diverse strengths. As psychological patterns like imposter syndrome can hurt many students [4], I proactively address these by reassuring students about their abilities [13]. As a professor, I will continue these efforts in advising students, while staying up-to-date on best practices for ensuring equitable outcomes [5].

**Outreach towards prospective graduate students.** Applying to graduate school in CS is a daunting process, particularly to many students from underrepresented backgrounds. I view this through the lens of a ‘hidden curriculum’ [1], which motivates me to try to spread awareness about it. Starting in 2020, I have mentored several prospective graduate students through a new ‘pre-application’ program. Through Zoom calls and written feedback on their application materials, I helped demystify the process for them, and pitch their work in the best light possible. Several of my mentees have just begun PhD programs. I will continue these outreach efforts as a professor.

**Organizing against systemic harassment.** Though the department where I did my PhD prides itself for being inclusive, its climate can be hostile towards underrepresented minorities. In 2018, the primary lecturer for introductory CS wrote several articles that were broadly seen as sexist. He distributed them to department-wide email lists, which made women and gender non-conforming students feel uncomfortable and unwelcome. The school’s policy was simply to ignore cases like this, lending this professor (and others) tacit agreement.

I helped organize a cohort of graduate students to push for change, through a mixture of channels. We wrote a public op-ed to break the silence [16], and pushed for systematic change. We won more institutional support for marginalized groups at a school level, along with a moderation system for public email lists. I will continue to stand against harassment as a professor.

**Lateral education and leadership.** During my undergraduate degree, I learned a lot from taking elective courses about diversity, equity, and inclusion in the sciences [12]. Yet, not everyone had those opportunities, and I believe that there is always more to learn.

During my PhD, I organized a reading group to collectively deepen understanding of systematic injustice. So far, we have read and discussed Erica Walker’s *Beyond Banneker* [14], Ibram X. Kendi’s *How to Be an Antiracist* [6], and Catherine D’Ignazio and Lauren Klein’s *Data Feminism* [3]. I have played the role of a facilitator, encouraging everyone to speak and be heard.

Beyond discussing ideas from these books in the abstract, we applied them locally to our own work as computer science researchers. For instance, we studied alternatives to the predominant *meritocratic* view on hiring [11]. On the more technical level, we discussed harms caused by field-wide use of large datasets, elucidated in *Data Feminism*, that in turn surface in work on language models [2]. To me, these discussions have helped promote new ways of thinking about research: sparking new research ideas towards better and more inclusive solutions. As a professor, I will help facilitate these critical discussions around equity in my lab group, in classrooms, and beyond.

Through education and practice, I will empower my students to deeply understand and take leadership around equity issues, as well.

**Inclusive and societally-minded AI Research.** AI has potential to have significant societal impact. While I believe that many of these impacts can be positive, there are many potential harms – that I try to mitigate through my work.

For instance, existing large-scale AI models are systematically biased. These biases in part are found in their training data (e.g. from the open internet), that are then in turn amplified by today’s learning algorithms [17]. I have advised several research projects seeking to catalogue and reduce these biases [7, 9]; I plan to continue these collaborations as a professor.

On a longer-term horizon, I see my long term vision of *grounded AI* as being an important tool in alleviating harms related to today’s *ungrounded* language learning paradigm [2]. At the same time, I believe it (like other technologies) will require effort at the policy level to be regulated equitably. Over the course of my past work on defending against AI-generated fake news [15], I met with people working in public policy to inform them about the threat landscape. I plan on continuing this important line of public outreach as a professor.

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