

Diversity Statement

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A recent study by the consulting firm McKinsey & Company found that “companies in the top quartile of racial/ethnic diversity were 35 percent more likely to have financial returns above their national industry median” [HLP15]. Not only does a group’s diversity positively correlate with its success, but the same study found that it also increases the job and life satisfaction of its members. Despite these benefits, computer science as a field is hardly diverse. I have taken concrete steps that advance and support diversity in our field, and I commit to continuing to do so as a faculty member.

1 ADMISSIONS AND HIRING

Last winter, I served on the PhD admissions committee for Carnegie Mellon University’s Computer Science Department. To prepare for this role, I completed an unconscious bias training program tailored for academics. This program taught us about various forms of bias, unconscious or otherwise, and techniques for mitigating bias in admissions and hiring.

For example, I learned to be aware of biases when evaluating references letters written for men and women. In some areas, letters written for men tend to be longer and more detailed, while letters written for women are more likely to hedge or raise doubts about the candidate [TP03]. Not only this, but letters written for men are more likely to use standout adjectives and to emphasize the candidate’s superlative ability [SWW07]. As a faculty member, I will be asked to write letters of reference, and being consciously aware of these biases will help me avoid them in my own letters.

I also learned to explicitly and objectively define selection criteria before evaluating any applicants. This reduces the potential for choice-supportive bias, where the justification for choosing a candidate is retroactively found after the candidate has been chosen. By choosing candidates according to objective criteria, we also force ourselves to consciously think through our choices, thereby minimizing the potential influence of any unconscious biases.

Selection criteria must also accurately reflect a position’s requirements, and we must be aware of diversity issues when defining these criteria. In graduate admissions, we were cognizant of the fact that applicants came from schools with a wide range of resources. However, a person’s undergraduate education is a secondary factor in their success as a PhD student: the key factor is their devotion to research. Accordingly, we evaluated applicants according to the criterion: What did the candidate accomplish given the resources available to them? In so doing, we chose students according to the most important criteria for success, and we avoided penalizing applicants for coming from weaker schools.

Finally, to increase diversity in academia, we need a diverse pool of candidates to hire or admit from. Various approaches help increase the diversity of an applicant pool. For example, outreach to underrepresented groups and the use of inclusive or affirmative language in postings both help. One can also help attract diverse candidates by ensuring that employment benefits are inclusive and appealing to a broad range of applicants. I will advocate for these approaches as a faculty member.

2 TEACHING AND RESEARCH

A diversity of experiences and backgrounds is inherent in any diverse group of people. For example, students in any incoming class, be it graduate or undergraduate, will have different strengths and background knowledge. To help them succeed, we must adapt our teaching and provide resources to meet their diverse needs. I got to do so as a teaching assistant by working one-on-one with students to teach them the background they needed to succeed in the course.

I believe that funding undergraduate research is an important means of increasing diversity in academia. Indeed, undergraduates who have not been exposed to research are unlikely to pursue graduate studies or academic careers. However, it is difficult to impossible for students from underprivileged backgrounds to do research if they must also work to support their studies. By funding undergraduate research, we enable these students to pursue careers in academia. I will encourage and support students in their pursuit of research funding wherever possible.

Mentoring research is another important means of increasing diversity in academia. I became an academic largely thanks to the support and mentoring I received as an undergraduate researcher. I would like to pass on this guidance and to help mentor the next generation of students. This includes encouraging students in my classes to pursue research opportunities, supervising undergraduate researchers, helping students navigate graduate school applications, etc. It also involves encouraging students to participate in research mentoring workshops like the *Programming Languages Mentoring Workshop* series, a series colocated with major programming languages research conferences.

REFERENCES

- [HLP15] Vivian Hunt, Dennis Layton, and Sara Prince. *Diversity Matters*. Research rep. McKinsey & Company, Feb. 2, 2015. 19 pp. (cit. on p. 1).
- [SWW07] Toni Schmader, Jessica Whitehead, and Vicki H. Wysocki. “A Linguistic Comparison of Letters of Recommendation for Male and Female Chemistry and Biochemistry Job Applicants”. In: *Sex Roles* 57.7-8 (2007), pp. 509–514. DOI: [10.1007/s11199-007-9291-4](https://doi.org/10.1007/s11199-007-9291-4) (cit. on p. 1).
- [TP03] Frances Trix and Carolyn Psenka. “Exploring the Color of Glass: Letters of Recommendation for Female and Male Medical Faculty”. In: *Discourse & Society* 14.2 (2003), pp. 191–220. DOI: [10.1177/0957926503014002277](https://doi.org/10.1177/0957926503014002277) (cit. on p. 1).