Diversity statement
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Research shows that diverse teams, which have different cognitive styles and viewpoints, are more creative and generate higher-quality output than homogeneous ones. Yet, computer science (and computer systems especially) is dominated by Caucasian and Asian males. This lack of diversity is caused by a variety of factors including the harmful myth that the computer scientists are lone hackers who work around the clock, a toxic masculine culture that alienates women, and a lack of access to computer-science education among underprivileged youth. As an Indian male from a middle-class household, I am keenly aware that my race and upbringing has privileged my career in computer science. As a diabetic, I am (to a small extent) aware of how aspects of computer-science culture can cause unnecessary hardships for students with disabilities.

Current & past diversity efforts: At Boston University, I am co-advising or advising four female graduate students on systems research. One student recently presented at the Observability Summit co-located with KubeCon, which had over 200 attendees. She received several questions after the talk and many people commented to me afterward on the high quality of her presentation. My experiences with mentoring female students have led me to two broad observations, which will inform my future advising efforts. These observations were also shared by other PIs at a recent NSF break-out session on increasing female participation in computer-science research, which I attended.

First, I have learned that female students are more motivated to work on a project when they are strongly aware of its applications and its benefits to society. As a result, for my research on building diagnosis tools, I emphasize to all my students how better tools would simplify engineers’ lives before discussing the complexity of the underlying systems and the joy of unraveling their mysteries.

Second, I have experienced first-hand the well-documented fact that female students often act less confidently than their male counterparts even when they are equally (or more) qualified. For example, for one group of students that I advise, a male student assumed leadership of a project by being louder and acting like he knew more than an equally-qualified female student who was working on the same project. To account for this difference in confidence levels, I now establish upfront who is leading a project and who is responsible for various aspects of it. I also allocate an equal amount of speaking time to students during group meetings and spend some time during 1:1 meetings with female students encouraging them and affirming their place in computer science.

To help broaden participation in computer science, I mentored two high-school students on research projects via the MIT Primes research program in 2017 and 2018. To give these students insight into what graduate school might be like, I assigned them projects related to my postdoctoral work and my current research at BU. I also involved them in my research group's meetings (e.g., by asking them to give presentations on their work). The students were named Siemens competition semi-finalists in 2017 and were selected to present at the Red Hat's Developer Conference (DevConf.US) in 2018. To my delight, they plan to pursue graduate school in computer science upon finishing college.

I am also currently a pen pal to an underprivileged middle-school student via the Letters to a Pre-Scientist letter-writing program. The goal of this program is to encourage underprivileged students’ interest in STEM fields. In my correspondences with my pen pal, I explain the beauty and joy of computer-science research and how computer-science research can benefit society. (We also write to each other about our favorite cartoons.) In the past, I volunteered at a science center and as a judge in various middle-school and high-school science fairs (e.g., Intel ISEF finals).

Future plans: My career in computer science has been immensely rewarding and I hope to give people of all backgrounds the opportunity to participate in this field. To do so, I will cultivate diversity in my research group by taking into account the elements of diversity that are missing from my group when selecting students. I will also instill within my group the culture of psychological safety—e.g., freedom to take risks, inquire freely, and persist in questioning—that is necessary for members of diverse groups to feel safe, supported, and confident to express their ideas.

To help broaden participation in systems & networking specifically (my research area), I plan to create lectures and course modules that both highlight the impact to society of systems research and also highlight key contributions to systems research by women and minorities (e.g., Grace Hopper, Elizabeth Feinler, and Radia Perlman). I will deliver these lectures (or work with my female and minority students) to deliver these lectures at high-schools and organizations on college campuses designed to increase diversity.

My experiences mentoring high-school students and engaging middle-school students in discussions about computer science have been extremely enjoyable. As faculty, I want to continue to incorporate high-school students into my research group, either by mentoring Intel ISEF students directly or via programs similar to MIT Primes. I also want to continue to participate in middle-school letter-writing programs, as this is a great, low-cost way to inspire young students. I hope to encourage my students to participate in these letter-writing programs as well. Finally, I hope to engage in programs to make computer science more accessible to people with disabilities. This might involve working with conference organizers to guarantee healthy food options are always available or to ensure conferences hosted in remote locations are more accessible.

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