

Personal Statement

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I have been very lucky to grow up in a family that had the motivation and means to unequivocally support me in the pursuit of my dreams. Growing up in Alaska, my intrepid parents drove me through countless snowstorms to years of after-school activities and early morning cello lessons. They let me explore everything I was curious about, even supporting me through dual bachelors degrees in two disparate fields. As a woman in computer science, however, I have experienced for the first time just the smallest taste of microaggressions and discrimination, experiences that have honed and strengthened some of my research passions.

It's not uncommon for me to be the only woman in the room, or at least the only woman in the first row of a computer science lecture or discussion section. Even when I'm not actively singled out, being obviously different from a group is intimidating. Unfortunately, for some people, my gender seems to be my defining quality. For example, after attaining my first teaching position, one of the first CS friends that I told responded by congratulating me on my luck of being female.

As it happens, I'm not just a woman in computer science — I'm a computer scientist. My gender really shouldn't have anything to do with it. Throughout my undergraduate career, however, I've heard quips dismissing my gender in my field of choice; even when those responsible don't intend to be cruel, or when the remarks are played as a joke, it still stings. I am keenly aware, however, that the difficulties I face are minor compared to those of people from less privileged backgrounds. Computer science, in particular, is a field inherently dependent on expensive new technology, so economic and social disadvantages can be especially detrimental. These difficulties are only compounded by sub-optimal educational tools and technology costs.

The funny thing is, I see similar discriminatory tendencies in myself, behaviors that I've done my best to correct. Once when I was conducting office hours, for example, I realized I regarded students running MacOS differently than students using Windows; I was stereotyping the competence of the student based off the sophistication of their machine, an assumption which was simply unfair. This showed me that socio-economic bias in computer science education is systemic, even for those individuals already cognizant of these stereotypes.

In my graduate study, I plan to develop and explore programming systems and educational tools that make computer science education more accessible and applicable, not only to women, but also to individuals of diverse ethnicities and socio-economic status. To be clear, my research goals aren't just promoting diversity in computer science, but also innovating technological solutions to evolving pedagogical problems. Nevertheless, I hope that my research will help students of all backgrounds explore and understand the joys of computer science. I am determined to always promote and advocate for diversity in computer science, both during my doctorate and throughout my professional career.