

# Inclusion and Diversity Statement

I am committed to creating an environment that fosters diversity in computer science and supports people of all cultures and backgrounds. Computer science impacts nearly every aspect of modern life, and multicultural diversity is key to ensuring the field reflects the needs, interests, and values of our society. Creating inclusive and supportive environments requires continual mindfulness and effort, and two recent examples highlight my efforts at increasing diversity in the field of computer science: (1) helping to retain student diversity in the computer science major, and (2) increasing computer science participation among underrepresented populations.

**Retaining Diversity in the Computer Science Major** Computer science departments can struggle to graduate underrepresented minority students that begin the major, but faculty engaging closely with these students early in their academic careers can retain some of these students. The University of California, San Diego created the Early Research Scholars Program (ERSP) to pair underrepresented minority students in their sophomore year with researchers at the university. The goal of ERSP is to “create a diverse and supportive community within the CSE department, with a particular focus on engaging students from groups currently underrepresented in computer science.”

I volunteered to mentor a group of four students, finding that different educational backgrounds can require different technical explanations. Part of my role was to teach the students general research skills and foundational data science techniques that they used to select a problem and devise a solution. I realized that while the students did not always possess the knowledge I expected based on my own experiences, explaining the material differently nearly always proved effective. The students quickly incorporated the material into their project discovering evidence of IP address theft from African networks. All of the students are about to complete their undergraduate degree in computer science, with at least one student continuing on to doctoral studies.

**Exposing Diverse Populations to Computer Science** Retaining a diverse student body in the computer science major cannot expand the population of students choosing to begin college and enter the major. One way to help expand the population is to inspire and motivate children from underrepresented groups while still in grade school. Building an interest in computer science at a young age can lead the children to realize their potential, even if few adults in their communities work in related fields.

For two years at the University of Pennsylvania (Penn), I mentored middle school students from an under-performing middle school in West Philadelphia. Each year I mentored two students, bringing them to my lab at Penn for two hours each week to help them create a video game of their design. We used the Scratch platform, which provided the building blocks to create interactive games while helping the students learn to think like computer scientists; e.g., conditionals and loops. All of the students wanted to develop video games professionally, and I encouraged them to study computer science in college as the best way to achieve that goal.

**Ongoing Commitment** Faculty have a responsibility to foster diversity, and I will create a supportive environment for students and colleagues of all backgrounds and cultures. Specifically, I plan to continue my K-12 outreach, and engage with research programs targeting underrepresented groups. I hope to build on my prior experiences of outreach both within and outside the university, and continue to grow in my attempts to increase diversity in computer science.