KEVIN A. ANGSTADT

DIVERSITY STATEMENT

Our field continues to struggle with challenges related to diversity, equity, and inclusion. With the recent publication of an internal memo at a large, well-known tech firm disparaging the role of women in the workforce (among numerous other examples), I am not surprised (but am disappointed) that women and minority groups continue to be underrepresented in our field and that departments struggle to retain non-male students. I believe that a sense of belonging is a vital aspect of student success in a discipline. As an individual in the LGBT+ community, I have experienced feelings of exclusion and not belonging. While I by no means equate my experiences with the experiences of others, they do allow me to begin to appreciate the challenges others must overcome to be successful computer scientists. As a scholar and educator, I believe it is my duty to reduce barriers for success and to strive to support all students.

I have worked to help educate TAs in the EECS department at the University of Michigan on barriers to success and strategies they can use to help support students. Our department employs approximately one hundred undergraduate and graduate TAs to teach introductory- and intermediate-level courses, meaning these individuals are often the first points of contact for students learning Computer Science. After educating myself on best practices by attending several professional development workshops offered by the university, I led the development and facilitation of 90 minute diversity workshops for EECS TAs in collaboration with the department’s diversity committee. Participants learned to identify barriers to success (e.g., stereotype threat, impostor syndrome, etc.) and discussed approaches and techniques for supporting student success in the department (e.g., rephrasing exclusionary language, promoting growth mindset, etc.). Over 100 teaching assistants received this training during the first semester the workshop was offered. The department is interested in continuing to provide these workshops, and the university’s engineering-wide teaching center has also expressed interest in collaborating on the effort.

While teaching Michigan’s intermediate-level Data Structures and Algorithms course, I acted as the course staff liaison to the department’s Computing Cares program, which focuses on supporting students with diverse identities and studying diversity metrics and student progress within the department. As part of my involvement, I developed a mini-lecture on stereotype threat and resilience for the class that is now part of the the schedule of topics (each introductory and intermediate class covers a different subset of barriers to success).

When talking to successful individuals with underrepresented identities in Computer Science, I have observed that strong mentorship is a common theme. This observation motivates my own efforts to act as a meaningful and supportive mentor. One of the most important resources a mentor can provide is time. As such I schedule weekly meetings with my mentees and make an effort to be available outside of these meetings. When teaching classes, I also make an effort to give students individual attention. For large classes, this can be a challenge; however, when holding office hours, I make a conscious effort to explicitly give each student my undivided attention. Additionally, I recognize that I am only one person and cannot provide every student with the mentorship and resources they deserve. To help mentor more students, I have applied for, and received, internal university funding for a mentorship-focused speaker series in Computer Science. Using these funds, the department invites successful computer scientists representing different careers (e.g., liberal arts academia, industrial research, etc.) and backgrounds to speak about their work with students and arranges for structured, small-group meetings with students to make them more aware of opportunities and career possibilities. In total, I have secured $30,000 (including matched department funds) to support seven speakers across two years. Over 90% of students attending the talks and mentorship meetings in the first year of the program agreed that the speakers helped them learn about different career options and applications of Computer Science. Additionally, over 90% agreed that the speaker series helped them to better understand how to achieve their career, academic, and research goals.

Going forward, I am extremely interested in continuing similar activities. Indeed, I wish to pursue a career in which I can prioritize teaching and mentorship of students who might feel as though they do not belong. I am also interested in studying how students of disparate identities are affected by barriers to success in computing disciplines. Without a better understanding of the challenges students face, it will be difficult to make lasting, meaningful progress.