

I am a rarity in my field, and I say this with certainty. Usually, if I am not the only woman in the crowd, I am almost for sure the only Latina. At times, being a representative for not only my gender but my ethnicity is trying—I feel I’m walking on eggshells to avoid reflecting negatively on both groups in others’ minds. I fear even small missteps could reinforce preconceived notions some of my peers already held.

While being very careful and restrained in my own actions, I take great responsibility in being a positive role model particularly toward future generations of computer scientists and engineers. When I teach, when I present my academic work, and when I talk one-on-one to students, I try to be the mentor and offer advice I often wished I had been given.

Many fail to realize that the effects of being underprivileged do not disappear upon entering university. During my undergraduate studies, there were events in my life that many of my Ivy League peers could not comprehend or conceive of: my father was imprisoned during my sophomore year of college; I hid the fact that I was undocumented from anyone (DACA was still years away); I was academically underprepared for many of my classes. Here I was, admitted to educational ivory towers, but I felt I was not on a level playing field. The perceived isolation from this can be demoralizing, affecting schoolwork and overall health. I do not want others to go through this alone like I felt I had to.

Do not get me wrong; I have met many amazing people in computing, thanks in part to organizations like CRA-WP<sup>1</sup>, NCWIT<sup>2</sup>, CMD-IT<sup>3</sup>, and AccessComputing. They are essential in helping improve diversity in computing and are fighting the good fight! A slew of wise academic mentors have also helped me along the way. I also have a PhD advisor who supports my research and my diversity-focused activities. I now wish to give back to all of them and further the field: my end-goal for my PhD studies is to obtain a teaching-track professorial position at a university. I want to share with students what I have learned the hard way so that they don’t have to. Whether a student wishes to continue in academia or directly enter industry, I want to be able to help them on their personal paths.

As mentioned in my teaching statement, I taught my first semester-long introductory computer science course in Fall 2018. Needless to say, I got to know my students well, learning their individual stories and ambitions. Because of Texas’ in-state admissions system, the student body of Texas A&M is quite diverse socioeconomically and geographically. Some were first-generation college students like I was, and many hailed from small or drastically underfunded school systems in the state. And unfortunately like me, some were not academically prepared for the course matter. It was heartbreaking when some students had to drop my course, whether for academic reasons or (worse, in my opinion) financial or home matters out of their control.

I know I cannot keep every student from historically marginalized or minoritized backgrounds in the field. I cannot change home environments, solve financial hurdles, or make up for years of missed academic knowledge. However, I can still do my part in my capacities. For example, I helped a few of my former students apply to REU<sup>4</sup> programs I had advertised in class. All three underrepresented students whose recommendation letters I wrote were accepted to programs. Because my own interest in research began through an REU, I know how important such opportunities can be.

Within my CS research subfield of computer architecture, I co-founded and currently lead the

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<sup>1</sup>Computer Research Association – Widening Participation

<sup>2</sup>National Center for Women & Information Technology

<sup>3</sup>Center for Minorities and People with Disabilities in IT

<sup>4</sup>Research Experience for Undergraduates

Computer Architecture Student Association, or CASA. (Our initial proposal for creating a student community can be read here). The aim of CASA is to nurture a vibrant, diverse, and inviting architecture student community. CASA is meant to be complementary to a student's academic experience, and is a way for students to connect during their higher education studies, a time known for its mental hardships and isolation. In these times of continued social distancing and at-home work, we feel connecting with others is as critical as ever.

Within the first year of CASA alone, we have organized online social meet-ups for architects, held multiple mentoring programs between hundreds of senior and junior students, and organized information sessions on maintaining good mental health and navigating academic relationships in graduate school. Moreover, we recently published our findings on the need for increased long-term mentoring and mentee opportunities in the field. In the paper, we highlight the importance of mentor-mentee relationships, and emphasize the long time frame necessary to solidify these relationships. While the computer architecture community currently hosts many short-term mentoring opportunities, long-term mentoring programming is currently not readily available. We also demonstrate how mentorship relationships are particularly important for students from historically marginalized backgrounds. It is therefore crucial to form long-term mentoring programs to retain these students and thus develop a more diverse computing body in the future. In response to these findings, we at CASA are currently working on developing long-term mentoring programming, and hope to lead our first mentor-mentee cohort in early 2022.

Because of my involvement in CASA, architecture students have already personally approached me for assistance with difficult, yet sadly prevalent, situations. I've been able to offer advice and connect them with resources, including ACM SIGARCH/SIGMICRO's CARES to help resolve their issues. We hope this becomes the norm as students learn of not just their options, but their rights in academia. Outside of computer architecture, several computing students have also reached out to me regarding juggling ADHD and PhD studies. In these cases, it's been my pleasure to share my experiences and all tips and strategies that have helped me be more successful in graduate school. The formation and direction of CASA has been a rewarding process for me, and already I feel I have a richer group of friends and colleagues both in the field and out of it. It is my hope that all my fellow students can benefit from CASA like I already have.

Both in research and teaching, I have always focused on making computing a more approachable, friendly, and diverse field. As a teaching-track professor, I hope to do this by participating in current departmental initiatives already in place, and help develop more if they are lacking. In the computer architecture community, I hope to continue supporting CASA, from the role of a faculty advisor, to ensure it continues thriving and helping future students. The underlying goal of all my efforts is to help anyone who is interested in computing enter it without barriers or feelings of not belonging. I know for a fact that my whole career will focus on actively reaching this goal, one small effort at a time.