

I am a recognized leader in current efforts to advance equity and inclusion in astronomy, with years of experience in spearheading efforts to increase the diversity of our community and significant time invested in formally and informally mentoring diverse groups of students. As a researcher, educator, and mentor, my goal is to be part of transforming our field so that it recognizes and rewards the wide range of strengths that all aspiring scientists bring with them, and so that successful navigation does not rely on a privileged background or require leaving behind part of one's identity to be accepted in a professional setting. Because my lived experience differs from so many of the students I interact with, the work that I do to advance equity and inclusion in the field begins with seeking out their perspectives: listening to and validating the experiences of students who encounter barriers that were invisible to me.

I spend significant one-on-one time mentoring students across the country from underserved populations: women, Black and Latinx students, students of different sexual orientations, students with disabilities, and students at the intersection of these identities. I prioritize spending time to help students prepare and improve their applications for bridge programs, graduate school, and postdoctoral fellowships, and to share knowledge that I have accumulated to help prepare for and succeed in different career stages. In doing so, I also work to be a champion for the excellence these students already possess: I take time to celebrate students' accomplishments, and to nominate them for career opportunities.

In addition to this work, I have led numerous interdisciplinary initiatives to increase equity and inclusion in the field, from teaching in local prisons to running a summer research and year-round mentoring program for undergraduate STEM students from traditionally underserved populations¹:

1. As a graduate student at UCLA, I twice taught a week-long introductory seminar as part of programs to prepare native Hawaiian students for STEM careers on the island.
2. While at UCLA, I led outreach from our department to underserved communities, and I taught science for a year in a largely Latino middle school.
3. As a Jansky fellow at the National Radio Astronomy Observatory in Socorro, I ran a summer research program (the National Astronomy Consortium, or NAC) for students from traditionally underserved populations.
4. As a professor at San Jose State University, I was a member of the Latinx-Chicanx student success taskforce, and organized a three-part workshop on how to succeed in STEM.
5. In Fall 2017 I taught astronomy in a Massachusetts state correctional institute through the Boston University Prison Education Program, which I will continue in Spring 2019 as part of my NSF-funded research program.

¹<http://eacmills.com/equity.html>

As a result of this work, I will bring with me significant experience supporting diverse learners through a wide range of career stages, a large network of connections for recruiting and supporting a diverse population of students, and a goal-oriented approach to increasing equity and inclusion at Ithaca College.

One goal of my work is to connect students with a network of mentors. I am not a role model for every student nor can I relate to all aspects of my students backgrounds. In the past, I have arranged a Diversity Speaker Series to connect students to colleagues who can serve as additional role models and sources of advice specific to the intersectional backgrounds of my students. At Ithaca College, I will continue to use my professional contacts, the seminar series, and my presence at conferences actively networking on behalf of students to connect undergraduate students with an array of mentors who can help create a community of support.

Another of these goals is to prepare students for future careers by building lasting relationships between students, mentors and role models, providing students with targeted professional development, and creating a safe community for the discussion of challenges and roadblocks to equal representation. In running the NAC summer program at NRAO Socorro, I addressed these goals by training local advisors in effective mentoring techniques, implementing a weekly summer seminar that complements students research experience, and having significant extracurricular interaction (dinners at my home, camping and rafting trips). Additionally, I continued year round mentoring of summer students via monthly Skype seminars. At Ithaca College I plan to begin applying this community model through a monthly equity, inclusion, and social justice journal club, in which students and faculty can discuss these topics and learn from each other.

Finally, as a professor at Ithaca College, a long-term goal is to recruit a more diverse undergraduate student cohort, and to provide the support and mentoring for these students to succeed at Ithaca College and beyond. One way in which I will do this is by expanding the 'Professional Physics and Astronomy Seminar' course to better reach and support a diverse student population, based on my experience running a similar workshop series to help undergraduate students from underrepresented groups at San Jose State succeed in STEM fields. The goals of this series were to connect students with information, resources, and strategies to succeed at various points in their undergraduate career, from their first STEM class to finding research to planning their path after college. I plan to apply this experience by first designing a workshop series, complementary to the existing Physics and Astronomy Department seminar course, for non-majors and prospective majors on how to succeed in their first physics or astronomy class, as a way to reach, support, and recruit more diverse students. I will also work to coordinate the seminar course series with other departments to help potentially isolated students make connections with peers with similar backgrounds and experiences. Finally, I also will bring to this course an emphasis on community and cultural values, to give less prominence to a deficit model of underrepresented students being lacking in preparation and subject to additional barriers, and to focus instead on helping students identify and recognize the unique strengths they already bring to a pursuit of excellence in physics, astronomy, and science in general.