

WE must treat all people with respect. People must feel their opinion is understood and recognized to participate and join the conversation. We will lose their voice, beliefs, and thoughts, which can significantly contribute to the discussion. Diversity begins with inclusion and fostering an environment in which everyone feels comfortable. Fostering this environment requires mitigating issues such as stereotype threat, excluding those who feel less confident, either due to command of the material or English, the exclusion due to a lack of shared cultural background, personality, and more. One must be actively inclusive—being agnostic to the situation is the same as inaction and making a negative choice towards maintaining a status quo that is not equitable. I am part of the majority and come from a privileged background: in pursuit of fostering an inclusive environment, it is a duty to use that role to bring others in, not to separate them.

§ Role as Faculty

I am committed to fostering a diverse and inclusive academic environment—it is essential to acknowledge that academia and scientific inquiry are not immune to bias, discrimination, and preconceptions. To address this, I am driven to create a research environment that values diversity as a fundamental component. I am eager to learn from individuals with various racial, ethnic, religious, national, gender, and sexual identities, as their unique perspectives enrich the academic experience.

For example, I had the opportunity to co-organize a workshop at the 2022 IEEE/RSJ *International Conference on Intelligent Robots and Systems*. Aware of representation issues in our field, we made sure that our lineup of speakers included women, people from diverse backgrounds, and people from different continents—these people have perspectives that are interesting and important to hear from. I will carry this attitude with me throughout my professional career when it comes to hosting workshops and conferences, inviting speakers, admitting new graduate students, and building my lab; I want to be inclusive to students from all backgrounds and create an environment that is collaborative and positively uplifts students from all walks of life.

It is also essential to listen to diverse viewpoints—it is easy to become an echo chamber as a lab and to have the conversation dominated by those more prone to sharing. In my current lab's journal club, I have made it a specific goal that every lab member gets a chance to express their opinion on the paper or to ask any question. This environment has allowed those who do not typically contribute an opportunity to participate in the discussion and has led to a kind lab environment where all students feel comfortable talking, collaborating, and respectfully disagreeing with each other. We also ensure to discuss the paper in a “steelman” way—only by seeing the best in others can we understand and believe in our strengths. I will continue this approach in leading my lab. I understand the need to be a moderator, ensuring that strong voices do not dominate the discourse and everyone's contributions are valued.

Supporting students with disabilities and providing an equitable learning environment is another crucial aspect of my commitment to diversity and inclusion. In classes I offer, as well as in direct mentoring, I plan to actively design projects that do not favor students based on their initial capabilities but rather encourage all individuals to learn, develop, and thrive. I understand the difficulties first-hand (both as a student and mentoring a student) with mental health and the high-pressure environment of graduate school. I will foster a healthy environment in my lab and classes, being open to those who have concerns or critiques to make sure everyone feels comfortable and respected. I will be flexible and work with students who have difficulties in their studies by being flexible and working *with* them, setting concrete goals and expectations and allowing them to set their pace to make progress and find what is most suitable for them.

§ Democratizing Robotics

The field of robotics sits between two worlds. One of these worlds creates a tremendous positive impact on our society by enabling intelligent agents in domains that are too dangerous (*e.g.*, space, disasters), too sparsely

populated (*e.g.*, ongoing nursing shortage), or too dull and dirty (*e.g.*, sanitation) and thus furthering many noble human pursuits. The other is a disaster for many: while simultaneously alleviating issues in labor, robots can be the cause of these shortages in the first place due to misuse by capital interests to displace workers. Any roboticist should be wary of these issues and be ready to address them as a part of the broader impacts of their research. The existence of robots also raises new and complex sociotechnical problems in areas such as privacy—robots are trusted and allowed to view people in a way most technology is not. We are already starting to see evidence of robots being used to collect data on unsuspecting people. I have already begun work in this direction and have explicit plans to continue this line of work by including interdisciplinary voices to bring the expertise of the social sciences and humanitarian perspective that I, as a roboticist, do not necessarily have.

Moreover, there must be a fair and equitable distribution of robotic technologies. Everyone should have access to the means to develop and deploy these systems: this is a crucial belief in my work, and I open-source all of my code. A particular focus of my research is also on improving the accessibility of complex research-grade software to all—part of my work has already been used to simplify teaching concepts of motion planning in classes at Rice. On the other hand, the gulf of capital (CPU/GPU hours, number of platforms, number of researchers) required to perform the research that makes attention-grabbing headlines by large companies and most labs in the world grows only larger. In the future, I want to extend my work into *outreach* and provide better support on limited hardware, enabling state-of-the-art methods to run on even low-power devices. Not all labs, hospitals, and schools can afford a \$25,000 mobile manipulator and the latest GPU—but they could get away with Raspberry Pi on an open-source platform. I believe it should be a goal of the field to allow anyone to use and contribute to the forefront of robotics, opening the walls of automation to everyone.

§ Future

The goal of having an inclusive and diverse environment, as well as allocating resources equitably, is a noble one and one that I will strive to maintain as a priority in my career. If there are opportunities to have a positive impact within the department, school or community, I will undoubtedly contribute and actively participate. I also have much to learn and much room to grow, and only by listening and being receptive to the views of others will I be able to progress toward being a person who can foster such a space.