Ahmed Hareedy
Diversity Statement

Working in a diverse environment that fosters students and faculty members from various backgrounds and guarantees equity and inclusion for everyone is quite important to me. It is a moral obligation on academic institutions towards the community to offer opportunities for underrepresented groups. Moreover, diverse working environments are very rich, and I personally learn a lot from them. In my new position as a faculty member, I am committed to creating a diverse working environment as I have always done. I also have a plan to increase my contributions to diversity. Since actions speak much louder than words, I directly introduce my contributions to diversity followed by my near future plan in the following lines.

Mentoring contributions: I have a good record of mentoring students in their research. I contributed to hiring various undergraduate, M.S., and Ph.D. students at UCLA and at Duke University. I published with them and helped them achieve success in their following steps. At UCLA, there are Nian Guo (currently a Ph.D. student at Caltech), Ruiyi Wu (currently a Ph.D. student at UCLA), Andrew Tan (currently a Ph.D. student at UCSD), Shyam Venkatasubramanian (currently an undergraduate student at UCLA), and Chinmayi Lanka (currently a Senior Quality Engineer at MathWorks). At Duke University, there are Rohith Kuditipudi (received the 2019 *Vasilos Award* given by the Duke CS Department for outstanding research, and currently a Ph.D. student at Stanford University) and Beyza Dabak (currently a Ph.D. student at Duke University in our group). I am still working with Shyam and Beyza, and writing papers with them until the time of writing these lines. There are 4 new undergraduate and graduate students, who took my course on coding theory in 2020, with whom I am also currently working and writing papers at Duke University. These are Xinyu Tan (an undergraduate student), Jessica Centers (a Ph.D. student), Qingzhong Liang (a Ph.D. student), and Jingzhen Hu (a Ph.D. student). These students got excited about the course content and projects, and consequently wanted to continue working with me.

The students I contributed to hiring come from very diverse backgrounds. Nian is a female from China. Ruiyi is a male from China. Andrew is a male from the United States with Taiwanese origins. Shyam is a male from the United States with Indian origins. Chinmayi is a female from India. Rohith is a male from the United States with Indian origins. Beyza is a female from Turkey. Xinyu is a female from China. Jessica is a female from the United States. Qingzhong is a male from China. Jingzhen is a female from China. These very different backgrounds demonstrate the diverse working environments I created at UCLA and at Duke. Furthermore, this group of students has almost equal numbers of males (5 students) and females (6 students), demonstrating that the gender demographics of students in engineering research environments can be more balanced when we create more opportunities for exciting work connected with state-of-the-art applications.

I also mentored Homa Esfahanizadeh, who is a female from Iran, for over 3 years during her time at UCLA pursuing her Ph.D. degree. I published 3 journal papers, 6 conference papers, and 2 workshop abstracts with her. Homa successfully defended her Ph.D. dissertation in December 2019, and she is currently a Postdoctoral Researcher at MIT. I am currently mentoring Siyi Yang, who is a female from China, and working with her on multiple projects. I have 2 published conference papers with her about coding for cloud storage. I have a recently submitted journal paper with her, and we are now working on another journal paper. Siyi is a Ph.D. candidate at UCLA, and she is expected to graduate by the summer of 2021. I always prepare a development plan for each student I mentor.

Information Initiative at Duke: The Rhodes Information Initiative at Duke (iiD) promotes undergraduate research through a 10-week summer research experience called Data+. In this program, students join small project teams and work alongside other teams in a communal environment. They learn how to marshal, analyze, and visualize data, while gaining broad exposure to the modern world of data science. Teams comprise 2-4 undergraduate/M.S. students, a Ph.D. student/postdoc manager, and a faculty advisor. The Data+ model of problem-driven team activity has inspired the development of the Code+, CS+, DOmath, and Story+ programs within Duke. In 2019, more than 170 undergraduates participated in these programs, with 111 participating in Data+ and Code+ alone.

The Data+ and Code+ programs attract equal numbers of male and female applicants, and they attract a considerable number of various underrepresented minorities as well. Therefore, these programs have more demographic diversity than is typical in STEM fields. The director of the iiD is Robert Calderbank, the celebrated scholar and my

mentor at Duke University. I am investing considerable time to understand how these intriguing programs can be established and how they can be maintained successful over the years.

My vision and future plan: In the current times, we need to be aware of social justice issues and be willing to engage in addressing them. Academic institutions need to be part of the solution not the problem. In my new position as a faculty member, I will be an advocate for values such as diversity, justice, equity, and inclusion. I am a team player, and I know how important these values are for collaborations to succeed and for organizations to excel. I will do my best to make sure that all students and colleagues are able to fulfill their potential regardless from their backgrounds. I will work towards a perfectly welcoming and inclusive environment at all levels. My plan for achieving these goals is summarized in the following items:

1. Raising awareness: It is fundamental to illustrate the importance of diversity to students and community members. I will organize and contribute to workshops that raise the awareness of the issues facing the society, suggest solutions, and allow participants to engage in related activities themselves.

2. Offering opportunities: I will continue creating a diverse working environment in my workplace. I will offer opportunities for all underrepresented groups in the engineering society. My track record, detailed above, demonstrates that I am capable of doing this.

3. Establishing initiatives: I am highly interested in establishing diversity-supporting initiatives, such as the iiD, at the university that will hire me. My personal experience along with statistics from the iiD show that giving exciting opportunities is key to increasing diversity in engineering research environments.

4. Ensuring values: In order to have a healthy diverse working environment, justice, equity, and inclusion should be systemically ensured. I will do my best to elevate these values to the level of a culture in my workplace. I will encourage everyone to speak out whenever violations are observed. My research lab will exemplify the welcoming and inclusive diverse environment I am hoping for in all academic institutions.