Broader Impacts — Dani Yogatama

I believe that computer science as a field would benefit from an inclusive culture and a more diverse population in terms of ethnic, gender, and cultural background. I am committed to continuing to learning and developing new ways to promote diversity in my communities.

Past Experience. My experience living in four countries (Indonesia, Japan, USA, UK) gave me firsthand knowledge of being in the position of a minority, which made me aware of some of the diverse challenges faced by historically underrepresented populations. In particular, my research advisor in Japan (Professor Kumiko Tanaka-Ishii) is an inspirational role model. During my time in Japan, she was one of the two female professors in my department. I saw how she overcame challenges faced by female academics which provided an insight into the kind of computer science department I aspire to help build.

I have also sought to contribute to broaden the participation of underrepresented groups. For example, I led the organization of the inaugural Southeast Asia Machine Learning School (SeaMLS). SeaMLS is a five-day event (July 8-12, 2019) hosted in Indonesia where participants (students, industry practitioners) attended lectures, practical sessions, and panel discussions in machine learning. I invited speakers from academia and industry, raised funding by partnering with international and regional companies, and selected 200 participants from approximately 1,200 applicants (32% of our participants are females). I believe that the best way to increase diversity in computer science is to improve the pipeline. We aspire to build a community of machine learning researchers, engineers, and practitioners in Southeast Asia that could actively contribute to the global ML ecosystem.

At DeepMind, I have also been involved in research projects to reduce biases in machine learning models. Previous work[1] suggests that the lack of diversity in artificial intelligence is interrelated with the problems of bias in machine learning models. As the technology becomes more mature, I think research in this area is integral to further equity and inclusion in computer science applications.

Planned activities. I am committed to building a research group that is both world class and culturally diverse. I have great examples on how to build such a research group in my PhD advisor and as a part of an organization that strongly supports inclusion and diversity such as DeepMind. I believe cross-cultural interactions foster creative thinking and stand to benefit everyone in the group.

Beyond my research group, I am also excited to increase diversity in computer science. For example, I intend to participate in recruiting programs to encourage talented undergraduate and graduate students who are women or LGBTQ to apply to CMU. I also hope to help enrich CMU's diversity via outreach programs to high schools that have significant portions of ethnic groups that are traditionally underrepresented populations in the United States.

I also plan to continue my SeaMLS effort. I understand that building a community in an underrepresented region to improve the diversity pipeline is a continual effort. I am currently involved in organizing SeaMLS 2020 in Vietnam and am exploring the possibility of SeaMLS 2021 in Malaysia. While SeaMLS focuses on Southeast Asia, we also partner closely with those who organize similar efforts in Africa (Deep Learning Indaba) and South America (Khipu).

Summary. I am passionate to contribute to promote diversity, equity, and inclusion—in my research group, in the Machine Learning Department, and at CMU in general—through mentorship and outreach programs. In my research, I strongly believe that artificial intelligence should benefit everyone in the world and I consider it my social responsibility to help create a platform to realize this goal.

[1] West, S. M., Whittaker, M. and Crawford, K. (2019). Discriminating Systems: Gender, Race and Power in AI. AI Now Institute. Retrieved from `https://ainowinstitute.org/discriminatingsystems.pdf`