Teaching Statement

My goal as an educator is to empower students from a variety of backgrounds, abilities, and goals to create and investigate equitable learning environments. I engage my students with diverse learning sciences approaches and reflect on issues of equity and ethics, so they are best situated in their future careers. I strive for my students to have strong practical and theoretical knowledge and increase their enthusiasm for pursuing future opportunities in industry, academia, teaching, and other settings.

My teaching philosophy embodies both constructivist and sociocultural theories of learning. I take a collaborative, interactive approach to teaching. I use activities that encourage participation, prompt students to question and explore the content, and embed rich conversations about ethics and equity. **I have taught courses and mentored students virtually and face-to-face, with students from a wide range of disciplines,** including learning sciences, computer science, and many others.

Teaching

The Spring of 2021, I **co-developed the course Justice, Equity, Diversity, and Inclusion (JEDI) in HCI** at Carnegie Mellon University. The course was taught virtually, for students, faculty, and staff who were interested in learning how our work as HCI researchers and practitioners is tied to power and oppression and discuss ways of dismantling structural inequities. Through multi-week modules, we introduced a range of topics through lectures and discussion, and students took part in a small open-ended project where they explored a method or topic introduced in the course. **I taught the module, Ethical, Inclusive, and Critical HCI Research Processes, where I led discussions on co-design methods of design and creating ethical collaborations with users.** As a class, we read material about Design Justice, and I covered how we practically and theoretically ground our research processes. To encourage virtual participation, I facilitated discussions as we deconstructed a range of examples of researchers defining their research processes and participant involvement. As a group, we shared what stood out to us, and discussed how our language impacts our research processes. I facilitated these discussions so that students could participate in a variety of ways (e.g., chat functionality, interactive slides, or speaking aloud through Zoom), so that students have the agency to decide based on what they were most comfortable with. To wrap up the module, as a class, we collaboratively created practical guidelines for working with users that are ethical and inclusive based on what we found in our deconstructed examples.

The *JEDI* course is one example of my teaching, but I look forward to applying these themes to courses in the learning sciences. An equally critical lens is necessary to learn about and deconstruct the theories and methodologies that we use. In the area of the learning sciences, I have been **invited to speak on topics including learning analytics, equity, educational technology, human-centered design, AI-supportive technologies, and design methodologies** at MIT, CMU, Ruhr-University Bochum, among other universities. I would be excited to teach and mentor students in these areas, and teach courses on **Participatory**

Design, Design-Based Research Methodologies, Creating and Critiquing Educational Technology, and Designing Equitable Learning Environments.

Mentorship

One of the most rewarding parts of my job is mentoring. I work closely with each student I mentor to tailor their tasks based on their experiences, interests, learning goals, and long-term career goals. At the University of Illinois and Carnegie Mellon University (CMU), **I mentored 33 undergraduate students (six from NSF's Research Experiences for Undergraduates (REU) program at CMU), one masters student, and three PhD students' projects.** I have mentored students from a range of disciplinary backgrounds including computer science, engineering, philosophy, informatics, and design. I provide students with a range of opportunities to explore research, which includes being involved in all stages of the research process, including brainstorming, data collection, analysis, writing, and other areas they are interested in. In one group, two REU students, Jaewook Lee and Joon Jang, created a tool for virtually prototyping spatial learning analytics, Virtual Reality displays and piloted it remotely with teachers. **Our work resulted in a co-first authored paper to Learning Analytics and Knowledge** (by Joon and Jaewook).

In addition to mentoring, I have experience managing and running large groups of students. **At CMU, I managed twelve students' virtual internships,** making up three teams; two of whom I was a primary mentor. Since this was a completely virtual internship, my goals were to build community and create a positive learning and working environment. I set clear expectations regarding project goals and tasks, as well as group norms (e.g., creating expectations for communication). I held twice weekly coworking hours and special sessions on request (e.g., a panel on going to grad school). During team and one-on-one sessions, I checked in with interns to see what help they needed; I answered questions and provided feedback on research and development. One-on-one meetings allowed me to tailor tasks and roles to the needs of the students. For instance, one developer on the team, Vikrant Bathala, wanted to learn about design research in addition to the technical skills he was hired to learn. I invited him to join our weekly design meetings, and he helped develop and facilitate sessions with teachers throughout the summer. This allowed him to gain skills and provided additional support during the user research phase of the project.

Cross-Institutional Instruction

Beyond teaching and mentoring, I have sought opportunities to spread knowledge about human-centered design. I have **co-organized three international workshops**, including a symposium at the International Conference of Learning Sciences (ICLS) focused on applying human-centered design in educational contexts and two workshop on human-centered design at both the Learning Analytics and Knowledge (LAK) Conference and European Conference of Technology Enhanced Learning (EC-TEL). The primary goal of these sessions was to introduce human-centered practices across disciplines. We organized interactive sessions, to teach participants about this approach and gave them hands-on experience developing a research plan that included users' voices. I will continue exploring these opportunities, because it is crucial to disseminate approaches, like human-centered design, to a variety of audiences.