

Before beginning my PhD at the University of Edinburgh, I developed a neurological disease which continues to afflict me today. Most significantly, it limits my ability to type and write. In order to continue my graduate studies, I used a medical leave of absence to learn how to dictate code using speech-to-text.

Unable to take notes, whiteboard, or use a computer normally, I couldn't conceal my condition. Instead of hiding, I wrote about my experience and accessible technology setup. My post was the top link on hackernews for a whole weekend, garnering hundreds of comments and a reshared Chinese translation. I began to receive emails from programmers and researchers around the world seeking my guidance. I spoke with each of them, giving them pointers for starting dictation practice, advice on continuing their careers, and words of comfort. **I still regularly respond to messages from people who have read about my experience and found hope for the possibility of a continued career.** Although this work appears nowhere on my CV, there is no service role of which I am more proud.

Disability activism. Outside of my direct role in guiding voice programmers, I have also advocated publicly for the technological needs of disabled people. I have delivered multiple invited talks on the topic, including a keynote at PyDataFest Amsterdam to an audience of over a hundred. These talks share my message that, in order to respect the diverse needs of disabled users, **adaptive technology and medical devices must be open source and easily modified.** With the same goal, I have also served on the advisory board for an accessible technology grant at the University of Southern California (USC).

Beyond my technological advocacy, I have volunteered on behalf of the disabled community as a panelist at affinity workshops for NAACL and ICLR, on the accessibility subcommittee for ACL, and as disability representative in the University of Edinburgh LGBTQ+ Staff Pride Network. I will always help disabled students navigate the obstacles they inevitably encounter.

Advocacy for ergonomics. For over a year when I first lost the ability to type, I believed that I might be suffering from an ordinary repetitive stress injury (RSI). I spent that time thoroughly researching RSIs, so during my PhD I presented the current evidence-based advice on their prevention and treatment in a humorous, casual talk I titled, "The Care and Feeding of Your Hacker Hands." I delivered this talk several times to different audiences. Dozens of people have told me that I gave them the knowledge and motivation that they needed to act while still in the early, often ignored, stages of an RSI. In my future role, I intend to lead **an initiative to prevent RSI** among students and employees.

Unconventional career trajectories. My disability reshaped how I work. I required an alternative toolset and a private office for dictation. The larger impact, however, was how it reshaped my research.

First, I avoided crowded problems, as the other students working on those topics could type code faster than I could dictate. In order to avoid publication races, I chose to work on a problem of great interest to me that nobody else was considering: understanding how language models learn. As interest in the topic has grown, my first paper on language model training dynamics has garnered more attention—it was cited more last year than any year before. My case is not anomalous; every researcher has a unique perspective which they can emphasize instead of moving in lockstep with their community. **If we pursue questions that excite us in ways that are unique to our perspective, we do not need to worry about being "scooped."** Leveraging these unique perspectives also, intrinsically, advantages marginalized students beyond disability status—an effect I am acutely aware of as a gay woman and a former international student.

The second consequence of my disability is that as soon as I had the opportunity, I switched to supervising rather than implementing projects. Once I began working as a postdoctoral researcher, I switched my focus to suggesting ideas, mentoring, and writing. Although I worried initially that I was too early in my career and should be first authoring projects, I knew that this would be the most efficient path to advance my research agenda. I have, consequently, barely dictated code since graduating. Instead, I have poured my energy into mentorship. Although my case is extreme, every researcher has a different

career trajectory, and I try to keep that flexible perspective in mind when advising and judging others.

Supervising projects early out of my PhD also meant working with collaborators who didn't have access to local mentorship. Some of my first mentoring projects were with students in India, Nepal, and Mexico. After publishing major conference papers through international collaboration networks, I know that astute scientists can come from anywhere—but are often neglected by elite academic institutions. In the future, I hope to recruit top students from outside these institutions and support their success in the most competitive environments.