Reprogramming my career

As I stood at the whiteboard with a marker in my hand and a five-person interview panel of industry experts watching me, I realized I had no idea how to perform the “simple” coding required to solve the question that was asked. I was about to be exposed as a fraud. What had ever made me think that I would be able to transition from medical research to data science? That was 6 months ago. Even though that initial interview was a disaster, I have since made the leap, and I now spend my days coding and performing data analysis to generate insights from millions of electronic medical records. Although I still have a lot to learn, it has been an exciting and liberating transition.

Throughout my early training, I tried to make all the right career choices to become an independent medical researcher and run my own lab. But it all came crumbling down during a frustrating postdoc. The situation came to a head when I ran into my Ph.D. supervisor at a cafe one morning. When she asked how I was, my eyes filled with tears and I could barely answer. I realized that I had been feeling unhappy and trapped for a year, and I had become a shell of the optimistic and enthusiastic person I once was. Something had to change.

So, I started exploring alternative career possibilities, looking for opportunities in areas with good employment prospects that would also be intellectually challenging. I hadn't heard of data science until a friend—a data scientist himself—suggested that it might be a good fit given my scientific background. When he asked me what programming languages I knew, I had no idea what he was talking about. But I was intrigued. Here was a rapidly growing field where I could apply the critical thinking and problem-solving skills that I had mastered as a medical researcher.

My friend introduced me to “meetups” with programmers and data scientists, and I quickly felt the same excitement that I did when attending scientific conferences. I was attracted to the openness with which people shared ideas, the lack of hierarchy, and how fast the field was moving.

But I wasn't totally ready to leave academia. So, over the next 2 years, I split my time between my postdoc position and developing the coding skills I would need in my potential new career. I took online programming courses, and my data scientist friend helped me get over the initial hurdles. I also incorporated programming into my medical research by doing data analysis utilizing my coding skills, rather than the statistical software that I was accustomed to using. It was hugely time-consuming, but I knew that it would pay off in the long run.

Finally, I felt that I was ready to let go of my original career plans. I revamped my lengthy CV into a one-page data science resume, compiled my publications’ abstracts into a word cloud to showcase my newly developed programming skills, and got that initial interview. I didn't land the job, but one of the academics on the interview panel put me in touch with the director of health data science at my institution. After a few conversations, he and I worked out a role for me where I could further develop my data science skills while also leveraging my existing expertise. Now, 3 months into my new position, I've found an inspiring supervisor and a supportive work environment, and I have rediscovered why I fell in love with science in the first place.

I'm still supported by my postdoctoral fellowship, with a year and a half of funding left. That will give me the time to figure out whether my passion for data science will continue to grow, and whether to stay in academia or move to industry. But I have already realized that the biggest challenge was letting go of my original dream of being a medical researcher leading my own research group. That gave me the courage to build new skills and follow a more fulfilling scientific direction.

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