A CONVERSATION WITH:

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Which systems thinking skills do you use?

#2: Consider the Wholes and Parts
Coding requires an understanding of each line of code, as well as the program's overall purpose. If there is a problem in the program as a whole, I must be able to find which part or parts of the system are causing the problem.

#5: Use Mental Modeling and Abstraction
As the healthcare system expands to reach more people, geographical models are used to show patients from different locations.

#16: Respond to changes over time
I use systems thinking in my everyday life, such as when I modified my career path as my passions evolved.

1. **What is your role within the STEM community?**
   I am a student ambassador at Northeastern, which allows me to help students who are interested in a computer science career but don't have a coding background, just like I started out. I support students with many different interests, as computer science can be combined with virtually any field. As an ambassador, I am able to share my story and help them find programs that could assist them in their journey.

2. **What complex problem do you address in your work?**
   I use technology to improve healthcare. One way I do this is by coding for an online appointment scheduler. When a patient schedules a doctor's appointment, the computer will receive that message from the hospital, convert it to JSON (a secure format to transfer data), and put that information into the appointment service database to schedule the appointment. That appointment slot would then become "grayed out" in real time to prevent other patients from scheduling an appointment for the same time.

3. **What elements do you need to consider when addressing this problem?**
   We have to decide how to include patient demographics in the healthcare system code as the patient base expands.

4. **How did you get to where you are today?**
   Growing up with my parents working in healthcare motivated me to pursue a career in healthcare also. I studied biochemistry at the UW and pursued pharmacy school there. I then interned at UW Medicine with a coding research project and realized I wanted to do more computer science in my career. This was a scary moment for me because I had spent the last two years focusing on pharmacy and had to take the risk of shifting my path, but I am very satisfied with my choice. Now I am pursuing a masters of science and computer science degree at Northeastern University, where I can combine my health background in pharmacy with technology to improve health systems.

5. **What advice do you have for becoming a systems thinker?**
   If you are interested in a particular field, like law, you can be a software engineer who works in law. There are ways to combine technology into many other fields like music, biology and healthcare.