

## Professor Giselle Reis: Programming Languages

1. **Why did we move from punch cards to programming languages? What does that tell you about the purpose of programming languages?**

We moved from punch cards to programming languages because it was not time-efficient and was fallible. Through the switch to programming languages, humans were able to program without errors, efficiently, and could store more data.

Source: [IEEE Specturm:From Punch Cards to Python](#)

2. **There are hundreds of different programming languages out there. Why do you think we need so many?**

One language limits what humans can achieve; thus, a variety of programming languages gives us a palette to choose from and be creative. Additionally, different languages are used for different purposes, newer languages are advanced, and different programmers prefer different languages.

Source: [Stack Overflow Blog: Why Are There So Many Programming Languages](#)

3. **What are some drawbacks of a programming language you use? How would you like it to be different? Think of specific examples.**

I primarily use Python (especially since that is the programming language we are using in 15-112) and I do not think that there are any issues with that language. However, I wish that, somehow, computers could be smarter because, while coding, we have to ensure that we close all loopholes and specify every single detail. If computers could understand something at the level humans could, then programming would be easier. However, this would increase the chance of AI replacing humans since computers would be as smart as humans. Thus, I do not think that there is anything that I would like to improve in any of the programming languages.

4. **If you were going to create a new programming language, how would you start? What do you need to define?**

If I were to create a new programming language, I would start by defining the purpose of the language. Then, I would work on the basic features of a programming language, which include functions, etc. In the process, I would also analyze other languages to help create my programming language.

Source: [Medium: How I Created My Own Programming Language From Scratch](#)