**Week 7 Discussion**

Why do you think companies are spending so much time focusing on technical/programming types of questions in data science interviews? In your own opinion why do you think there is a focus at many of these companies on data structures and algorithms/efficient programming and less of an emphasis on the modeling aspect of the interview? Do some research on the data science coding interview process and provide an argument as to why companies put so much emphasis on this nowadays. Please respond to 3 other students' posts.

In my own opinion, I think a big reason companies spend so much time focusing on technical/programming types of questions is because of the large-scale application to the data science process. This process includes the initial gathering of raw data, wrangling the data to create a tidy dataset, exploring data and creating visualizations, creating a model along with fitting a model, and finally communicating the results (1). Within this process, technical programming skills are required throughout. While modeling the data is certainly an important step in the process, programming skills are required well before the modeling step. If I was a manager at a large tech company, I would prioritize technical skills mainly for this reason. While statistical modeling is a vital part of data science and machine learning, a candidate will never even get to this point in the process without the technical programming skills needed. Additionally, many companies may in fact hire statisticians or mathematicians to supplement the statistical modeling side of data science and create a separation of duties between programming and statistical skillsets.

Additionally, I think the larger companies who are data science focused are engineering centric. In other words, I think the primary focus of some of the biggest companies is based on technical programming because of the engineering mindset of said companies. For example, on Google’s website, there is a posting for a Staff Data Scientist. Within this posting, Google directly states that they are and always will be an engineering company. In the very next sentence, they mention that they hire people with a broad set of technical skills who are ready to take on some of technology's greatest challenges and make an impact on millions, if not billions, of users (2). Google is one of the largest companies in the world and commands the cutting edge of technology and data space. I imagine smaller Google competitors would model their practices based on similar principles, and therefore also look for similar skills. This mindset therefore propagates throughout the industry, placing a particular emphasis on programming and technical skillsets.

In conclusion, I think these are two big reasons why companies place such an emphasis on technical skills and programming in data science interviews. As the complexity of data continues to increase and evolve, it will be interesting to see how companies adapt to the ever-increasing demand for data science skillsets.

**Resources**

1. Andrews, M. (2021). Chapter 1: Data Analysis and Data Science. In *Doing data science in R: An introduction for social scientists*. essay, SAGE Publications Ltd.
2. Google. (n.d.). *Staff data scientist, research - google careers*. Google. https://www.google.com/about/careers/applications/jobs/results/95295412853711558-staff-data-scientist-research?q=%22Data+Scientist%22