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Course: BADM 261

Date: 11/18/2022

The Tech Industry Fiasco from a Student's Perspective

While the term “fiasco” might be putting it harshly, the job market in the tech industry does not look well for new graduates. Here are some statistics and news headlines from the past week. *Googlers Post Layoff Memes to Express Anxiety Over Tech Industry Cuts* - Business Insider. *4 big questions for Big Tech after its worst day for layoffs in 2022* - Fortune. *Tech Layoffs In 2022: 23 Companies Slashing Their Workforce* - CRN. *Amazon said it was pausing corporate hiring, while Lyft and Stripe said they were cutting jobs* - New York Times. What I am trying to say is that Big Tech has no more room for us.

The phrase “Breaking into Big Tech” is something that many of my fellow students hold near their professional goals. The combination of work, pay/compensation, and overall status attract the best and brightest students studying Computer Science and Engineering. However, the majority of students can't realize the vast competition of not just competing with other students, but now, experienced engineers who have been laid off. This is something that was brought to my attention by a tech Tik-Tok-er, zero2sudo. He explained that this current situation impacts everyone and will impact them for a few years until the recession subsidies. But what mainly drew me to his content is the similarity between our situations in college. The Tik-Tok-er zero2sudo went to the University of Washington and studied Applied Mathematics. He studied applied math not because he was good at math or enjoyed writing proofs; its because he was denied the Computer Science major at the University of Washington. I can relate to this setback. While he does have a formal education in Computer Science by taking courses at school, his degree will not say that. This will also be the case for me. Getting to the point, what draws the Big Tech industry to me is obviously the combination of work, pay/compensation, and overall status, but also the lack of the requirement of a formal education/degree in computer science or computer engineering. They take into consideration of specific courses, experiences, and projects that you have worked on.

To supplement my applications, I have worked on many projects allowing me to explore where my interests lie. My current project is exploring different strategies of web scraping without getting caught by bot detectors or the many version of Google's Captcha, re-Captcha. My first approach was building a naive User-agent spoofer. A very concise explanation of what a user-agent string is and how websites can detect scraping activity with them: when your device makes a request to a website, the HTTP header contains a user-agent string which is information about the device you are using. To detect scraping activity, a website can track the number of times the same device makes a request via the user agent string in the HTTP request header. If it has been making an unusual amount of requests to the servers, then they can throw a captcha. My approach was to make a microservice that rotates through different user agents for every different request. Essentially, I was having a different user agent pass into the HTTP request header. This can be easily integrated into an HTTP Client like Axios for JavaScript/Node.js and the request library for Python.