* My algorithms are likely to promote and amplify applicants who started off well and continued doing well in school. However, it disregards those who started off poorly (possibly due to a lack of computer science resources in high school like one of the scenarios said) and improved throughout college. For example, one of the applicants that I randomly selected had bad grades in early computer science courses but had great grades in the other courses. Also, my algorithm doesn’t really look at other important factors in screening applicants, such as their portfolios and prior work experience. This means that an applicant who went to school many years ago and performed poorly but has done great work since then would be rejected, while someone who just graduated with high grades without any work experience or much of a portfolio would get accepted. Also, if the applicants graduated from different schools, the grades would mean different things. For example, an A from MIT is a lot more valuable than an A in community college.
* A fair algorithm is one that takes all external factors into account when calculating. For example, if the applicant had a family emergency while taking one of the courses that affected one or more of their grades like one of the scenarios said, a fair algorithm would take that into account when determining if the person is a good candidate for the job. A perfectly fair algorithm would be able to do this in all scenarios, applying a perfect adjustment in order to calculate whether the person is a good candidate for the job. In other words, in a scenario as complex as this one, a perfectly fair algorithm doesn’t exist.
* The ideal balance between permissive algorithms and the costly human work is one where the algorithm captures every candidate that has a permissible excuse for low grades (the examples mentioned earlier including the one where someone went to school many years ago). As mentioned earlier, this kind of algorithm does not exist yet. A very good algorithm would need to capture most of these candidates, although may capture a few that don’t have good excuses for their low grades. This may cause more human work and have less of a likelihood of choosing the best candidates, but it is the best that an algorithm can do barring new advances in computer science.