Why illumina?

I wanted to work at healthcare industry since undergraduate and that’s why I go to pursue my Biostats master’s degree in Johns Hopkins in order to get more resources and exposure in solving healthcare and biotechnology problem. And then why do I choose to apply for illumina? Cause illumina innovates genomics industry and constantly searches for new solutions for oncology genomics. I choose to work at healthcare field to save people’s life or at least improve their life and illumina provides an exact platform for my goal. And illumina is a company that truly values talents. It provides an EEO for all kinds of candidates. For international students, I can see that illumina is very willing to provide sponsorship. If I do have a chance to work in such a diverse environment, I’m very honored that I can learn a lot from co-wokers with all kinds of background.

**Tell us about yourself**

I have always been self-motivated. During my internship at sellmark corporation, I was asked by customers to forecast the sales amount of a certain series of product in terms of time. I checked tons of papers, tutorials, books about building time series model and finally came through with a hybrid model combining arima and multivariate regression. I’m also a self-learner that gets familiar with new things really fast. I obtained SAS advanced certificate within one week and also got familiar with support vector machine and random forest algorithm in R within 2 days for my kaggle competition. Even though I may not have educational background and experience in pure business, I have knowledge of quantative analysis. I have skills in computational modeling. And most importantly, I have strong desire to learn.

**What’s your greatest weakness?**

I will first start this question by talking about my greatest strength. I’m a considerate person; I love to plan things much earlier than the actual due date. For example, if my project due is on Friday, I’ll probably finish it by that Monday and the rest of the time I'll focus on other things. However, the fact that I’m being too considerate is also my greatest weakness. I’m prone to get stressed and upset about things that are not planned as I thought. During my graduation ceremony, I had to settle down my parents’ itinerary, I had to focus on my kaggle competition, and also all of my finals. I had to also plan beforehand to sell my furniture and move out right after the ceremony. The situations were just not always under expected. SO I had a very serious insomnia during that time. So right now, I’m trying to be more open-minded. I’m not suffering from insomnia any more. I still plan things beforehand, but I’ll take all kinds of situations into consideration.

What’s your greatest strength?

Curiority and passion towards field that I’m not familiar with. I think this curiocity helps me to move forward towards new challenges that I will face. Back to my undergrad, I wanted to work at healthcare and biotechnology industry but I knew nothing about it. So I started my research on the United states healthcare insurance system. Why almost 16% of GDP of united states was contributed by medical insurance? How did medicare work? How did affordable care act work? I was even thinking about taking the acurial cerficate exam in order to comprehensively know this field. I also got interested in clinical gemomics and tried to find a research assistant position relavent to it, so I read several related papers on analyzing genomics data in statistical programming language such as R. And how can we utilize this analysis to help patients, to predict disease and even to innovate new treatments.

SO I believe my curiosty and passion towards new things will also bring a brand new insight for the bi team.

How do you deal with conflict

If I’m having conflict with one of my team members, the first thing I will do is try not to worsen this conflict in front of the rest of the team. Cause I think collaboration is one of the most things among team work, the morality of the team should not be negatitvely influenced by this conflict. And indeed, the team member who I’m having conflict with and me should calm down and have a talk, not about personality attack but focusing on the solution. During my kaggle competition, I was having different opinion about analyzing and modeling the data. In order to be more efficient, my teammate and I decided to follow our own idea first. And as soon as one person made some progress, the whole team would stick onto his or her idea. This efficiency gained us a 7th place during this kaggle competition out of 56 teams.

Describe standard deviation to a five year old.

Standard deviation measures the spread of things. Larger standard deviation means that things are more spread away. For example, standard deviation for 1 and 9 is larger than the standard deviation for 1 and 2 since 1 and 9 are further apart.

Mean measures the average of a group of number. Let’s say we have a group of number 1 to 5, the mean can be calculated by two steps. First we have to sum our numbers ,which results in 15. The second step requires us to divide this sum by the total number of our observations. We have 5 number in this case, so 15 has to be divided by 5, which gives us 3 for the mean.

Median is the middle number if you arrange all the number you have in order. For example if we have 5,2 and 3. We have to place these 3 numbers in order first, which are 2,3 and 5. So in this case the median is the middle number 3. If we have 5,2,3 and 4. We still arrange them first in order, which are 2,3,4,5. In this case the middle numbers are 3 and 4. So we have to take a average between 3 and 4 find the median

Mode is the number that occurs most frequently. For example, if we have 1,1,2,2,3,3,3. The mode is 3 since it occurs three times while 1 and 2 only occurs 2 times.

Why industry as opposed to academia?

Provide an example of you troubleshooting.

What motivates you

What is a p-value?

P value normally returns a probability. It is built under a hypothesis test. Lets say we want to test if the expression of certain gene would differ among cancer patient and control. SO our null hupothesis would be that this different is 0, therefore there is no difference at all under null hupothesos. In this case the p value is the probability of seeing no difference among gene expression level. If p value is really small, this means the null hypothesis may occur mostly by chance. Therefore, the majority of our data would not have the same value as the null.

Why are you interested in this position?

I will separate this question into 2 parts. First, I’m very interested in healthcare industry, especially clinical geneomics. I think this innovative field may be the future solution of treating cancer and oncology. Second, I would love to develop strategy based on cutomer behavior cause this makes me feel like I’m working with real people, building a bridge for them to understand illumina. This makes me feel more motivated than simply working with plain data. And combining thoese two facts, I think this position can help simplify the Basespace sequencing hub platform for customer, which would ultimately make genomics data analysis more efficient and more understandable to ornary people. I think this is a big step for clinical genomics to succeed and solve real preoblems in the future.

Describe one time you made a mistake

Why would we not want to hire you?

I know this position is looking for someone who have strong analytical background and can also provide innovative business strategy. I’m confidant that I have the skills that this position requires. I have over 2 years experience with r and have established customer segmentation model, classification model and also prediction model. I had a strong educational background in mathematical statistics, statistical randomnization and data mining. However, if you compare my resume with other candidates, I may be weak in the business development part. I did not have relavant educational background in marketing or business analytics. If you do value business background the most, you may not want to hire me. But as I talked eailer, I’m a fast self-learner and I’m always looking forward to new fields. So I’m pretty confidant that I’ get hands on this as quickly as I can.

Describe yourself in one word?

Considerate

What do you think you are a good fit for this position?

I think this BI posttion is looking for someone who have strong analytical background and can also provide innovative business strategy. I’m very confidant that I have strong analysitcal background. I’m trained as a analytics-oriented statistican. I have over 2 years experience with R and I have obtained my sas advanced and base certificate. During my kaggle competition for one of my data mining class. My teammates and I built a prediction and classification model using random forest and boosting and our final results returned a 7th place out of 60 teams. I also had exposure in establishing customer segmentation model during datafest completion, which was a programming-oritend completion sponsored by American statistical association. During the competition, we used the data from ticket master and bulilt price optimization strategy based on cutomer’s geographical location and popularity of the event. Other than my analytical background, I also had exposure in providing business insight. During my internship at sellmark corporation, I built a hybrid time series model using arima and multivariate regression to predict the sales amount. I also provided insight about the potentiality of products that were new into the market.

Moreover ,my strong academic record proves that I can be multi-tasked and detail-oriented. Currently, I’m pursuing my master’s degree in biostatistics at johns Hopkins university with a cumulative gpa of 4.0. I obtained my undergraduate degree in both statistics and biochemistry at UCLA with a major gpa of 3.92 and a cumulative gpa of 3.63.

In a word, based on my analytical and academic background, I’m very confidant that I can make contribution to illumina, to people in this BI department.