Amazon BQ Script

Why Amazon?

Amazon is the best e-commerce company in the world with a strong obsession to provide the best possible service for the customers. As an hard-working and customer-aware person myself, I find the working culture here at Amazon extremely enticing. Additionally, I am beyond amazed and fascinated at how much and how fast Amazon grew over the years with an diverse range of products such as Alexa, Fire Tablet, and Kindle; just to name a few. Therefore, this is the right place to learn and apply my skills through teamwork with other talented and passionate engineering specialists to solve complex problems and ignite innovation.

Why Choose This Position?

As an recent graduate with limited internship experiences in software development, I feel as though pursuing an junior SDE role here at Amazon is my best possible option. I really feel as though this will be an amazing opportunity to learn and grow through participating in every stage of software development process from design to implementation to deployment. Additionally, the opportunity to passionately solve and to understand complex problems and then to scale and optimize the solution to provide the best possible service to customers is one I feel like I would not get working anywhere else.

Introduce Yourself

My name is Jay. I am a recent graduate from the Honors College at the University of Nevada, Reno. I have an one year experience in software design and development from an previous internship. During the internship, I communicate with stakeholders to establish and analyze functional requirements, then help with the design and implementation of every feature of mobile application from frontend to backend. The stakeholders were very satisfied with the product and is currently being scaled to accommodate the entire US market. The app make use of Google Map API and web crawling technologies. I am also competent in big data, which I learn in school.

The biggest mistake you made and what did you learn from it? (earn trust, customer obsession)

During my time as an software developer intern at On Common Ground, I was tasked with helping the design and implementation of the front-end UI. I was briefed by the stakeholders on what they were looking for in the UI and was given a very flexible deadline. As it was my first time as an intern, I was so fixated on the technical complexity and requirements of UI that I placed the elegance of the app over the stakeholders' business requirements. The stakeholders end up not liking the interface and I apologized immediately. Then I helped arrange a series of meetings between the team and the stakeholders to re-discuss specifically their ideal interface. We utilized the whiteboard drawings to ensure that the UI matches their preference. This time, I

placed simplicity over elegance, utilizing the KISS principle. Within three days, the redesigned UI was given delivered to the stakeholders and they liked it very much. As a result, our team received positive feedback.

Most challenging project?

The most challenging project I have done up-to-date would have to be my final year capstone project Aerial Drone Notification System. The concept behind the project is simple: monitor UAV's battery level and proximity to objects and then alerts, via Raspberry Pi on drone and user's PC, the user if either battery consumption or proximity threshold is exceeded. Before the project, I have done neither hardware programming nor ROS. Through collaboration with others and individual research, I was able learn a lot about hardware programming and how to send and receive data via WiFi. I remained positive throughout the process and never stopped being curious when exploring technical topics pertaining to the project. I also learned the importance of breaking down large complex task into many specific doable units. In the end, my project received positive feedback from Aerial Drone researchers at our school.

CUSTOMER OBSESSION

During my time as an intern at On Common Ground, I took up a task adding a database search feature for our backend development team. The stakeholder was very helpful in providing specific requirements. However, the simple requirements involved lots of technical complexities and resources that were just simply impossible at the time. As an result, I had to arrange a series of meetings between the backend team and the stakeholders to communicate specifically the technical complexities involving the business requirements and how we could possibly reuse some of the existing solutions to accomplish the task at hand. The meetings were successful, we end up dumbing down task into smaller doable components and then coming up with optimal solution with moderate technical complexity for each task. I have even made smaller demos and prototypes on Android for the stakeholders to help visualize the feature during our meetings. The feature addition was an success and the same stakeholder end up being our app sponsor.

OWNERSHIP

During my time as intern at On Common Ground, I took on an role leading two other interns with the addition of an advertisement feature from our sponsors to the mobile app. Since it was my first time leading a project, I need ensure that I understand the project concept completely and thoroughly. To do so, I participated in every meeting with our sponsors hosted by our project manager and then spend time outside of work consulting other software engineers and read textbooks and articles related to the project and software development. I would take notes at every meeting and then offer what I learn and then receive feedback from other software engineers. Because of my complete and thorough understanding, I was able to quickly communicate every concept behind the project and then assign priority to the functional

requirements. Although I sacrifice my personal time in short time, but it saved us time in the design and development phases by more than 30% and we were able to accomplish the project by the demo day. During the demo day, our project received positive feedback from the sponsors, the project manager, and other software engineers.

INVENT AND SIMPLIFY

For our map feature at On Common Ground, we had to create different categories of menus and markers for each type of resource locations; for instance, food pantries, public showers, and churches etc. Instead recreating the same widgets for each category, I propose that we just simply provide user button options for each category and then highlight the marker in red when the button is clicked. This simplified the development process and saved us valuable time and also made the app more efficient for the user to interact with.

ARE RIGHT, A LOT

Before I started the design of the front-end UI, I consulted other software engineers at On Common Ground. They were able to provide many meaningful suggestions such as finding existing templates and adding good transitions from one window to the next. As a result of their suggestions, I was able to reduce my development time by 50%.

LEARN AND BE CURIOUS

I recently started learning about machine learning and artificial intelligence independently. I also started reading Agile Development by Robert Martin to sharpen my skills as an software engineer.

HIRE AND DEVELOP THE BEST: Tell me about a time when you had to deal with a poor performer on your team.

During my time on the backend time, I constantly invite software engineers from other teams to try out and test our project. I even taught them through explanation of my project's high-level and low-level so they could reuse the same solution when similar projects are handed to them in the future. They would also in turn provide technical feedback.

INSIST ON THE HIGHEST STANDARDS

For my capstone project Aerial Drone Notification System, one of the feature was to display the UAV's sensor offset values in the GUI. Although the task was accomplished, I figured that it would be easier for the user to directly change the values on the GUI and then send the value back to Raspberry Pi on-board the drone instead of re-configuring on the Pi itself. The change improved efficiency of the system and received positive feedback from the users.

THINK BIG: Tell me about a time when you proposed a new business.

Newspapers, articles, and journals summaries.

BIAS FOR ACTION

The other engineer and I discussed for a couple hours, figured out what we disagreed on, and I suggested that neither answer was necessarily better. She agreed. I said that unless she had any new info, I'd rather we just pick mine, and we could always come back to the decision later if we learned something new.

FRUGALITY: Tell me about a time where you thought of a clever new way to save money for the company.

For most of the features that I implemented as an intern at On Common Ground, I would always try to research existing solutions first for reuse.

EARN TRUST

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DIVE DEEP: Tell me about a time when you had to dive deep into the data and the results you achieved.

You believe the person but check the facts anyway.

HAVE BACKBONE, DISAGREE AND COMMIT

If I have different idea with my manager or boss, I will try to collect data or make a prototype trying to convince him. If I have tried my best and he still disagree, then I would respect his decision and start committing for that. When we released the email newsletter feature for our users, some of the users complaint that they were not receiving the emails. After thorough checking, I found out that our corporate email provider were not able to send emails to hotmail

accounts. Therefore, I brought this problem up to my manager and suggested to register another business mailbox provided by gmail. The manager disagreed at first because he thought it was unprofessional if we didn't use our own corporate email domain. I thought solving this problem was more important because our client would lose the trust on the quality of our data. In order to convince him, I showed him the data of email missing rate and the impacts on our client, and also I registered a good domain name composed by our company and department name, so we could still be professional on that part. Finally, the manager was convinced and agreed on my suggestion. We barely have any missed emails after we switched our mailbox. And because of the good result, we started to use the domain for other projects gradually.

DELIVER RESULTS: Tell me about a time where you overcame an obstacle and delivered results.

First, I'd check every possible way that could possibly make me hit the date, like using after-work time, weekends, or holidays, asking for help or suggestions, finding alternatives or simpler solutions, etc. Since I am the owner of the tasks, it's my responsibility to deliver results on time. It's my fault that I underestimated the workload when I took the tasks. There was one time that we couldn't finish the troubleshooting of a bug on time; our recipe search engine feature would not work at times when some ingredients were inputted in the text field. Before solving the problem, I would manually send emails to the client who were impacted. If I still couldn't hit the date, I would look at features, pick out a few with highest priority that I could finish, and then discuss about the problem with the project manager. Of course, I would apologize first and then try to discuss about the best solution to minimize the impacts. Once the project manager agrees, I would notify all the people that could be impacted by the delay.