1. We have the following eBay offices – San Jose, San Francisco (StubHub), Seattle, Austin, New York, and Portland.  Please stack rank your top preferred working location (leave 2/3 blank if not interest in relocation, or include all preferred locations in line 1 if you have no preference.):

1.) San Jose

2.) San Francisco (StubHub),

3.)

1. Please list your top 5 technical strengths:
2. : Django (using it for current work)
3. : Dynamic Programming and Multistage Decision Processes
4. : Regression Analysis （statistic）
5. : Deterministic Optimization and Design（ operations research）
6. :

1. Please list your top personal strengths:
2. : Smart; Strong will to learn novel things, and learn things fast
3. : Hard Working
4. : Easy Going

1. Can you describe in detail your most challenging project and what steps you individually made to succeed in this project?

There are three projects in our company’s whole web application. One project named Asian Market Indicators (AMI). This project will give our customer our analysis about their product’s influence in Asian Market. I was the main developer in one sub-project of AMI, named AMI-on-demand. Other two named AMI-school and AMI-brand.

Yes, this sub-project was a big challenge for me, since it was the first time I need to finish a whole web-application from front end to back end. But after that, the manger asked me to do a database redesign task for the AMI project. Since each of these three sub-projects in AMI project has its own database scheme design. But at that time, the manager hoped to use one pattern for these three database. It is a hard work, because not only I need to redesign the database based on the manager’s goal, but also need to persuade the main developers of other two sub-project to revise their program based on the new database scheme. What I did is to mix the design-work and persuading-work together. First designed the frame by myself, then talked to the two main developer (sometimes together, sometimes individually). I asked them the suggestion or the solution for the problem I met, which made them feel they were involved in this task. They gave me more idea and suggestions. They revised their programming based on the new progress on one's own initiative. Through the discussion way, I complete the task very well.

1. Can you code in C, C++, C# or Java?

 No. I use Python and Java Script for current work.

1. This positions requires writing code on a daily basis. Are you someone who is willing and capable of doing that?

Yes, I am. That’s what I am doing now and what I expect to do in future.

1. Are you familiar with Computer Science fundamentals such as common data structures and algorithms used?

Yes. I have taken the course and also do practice on leetcode.

1. Will you be able and willing to write working code (not pseudo code) on a whiteboard during the interviews?

Yes.

1. From a scale of 0 to 5, 5 being the highest – what number will you rate yourself in the following areas of experience to overall professional industry peers (it is not a requirement to have experience in all category:(Legend: 0-No knowledge of it, 1-Read or heard about it, 2-Tested it in a lab or academic environment, 3-Professionally worked on it, 4-Professional mastery of it, 5-Invented/Wrote a bestselling book/Source code contributor of it)

OO Development Proficiency : 3

Distributed Systems             :0

Algorithm/Data Structures       :3

NoSQL/Hadoop/HDFS               :2

Machine Learning                :0

NLP/Machine Translation :0

A/B Testing                     :2

Statistical Modeling, R         :2

REST/SOAP Development   :1

1. Why do you want to work for eBay?

I hope to contribute my effort to a great platform like eBay, to service customers all over the world, to work with top talent team in Silicon Valley.

1. Have you interviewed with eBay/PayPal in the past year?

No

1. Do you have any vacation plans in the next 2-3 months?

No

What is the best valuable experience you had at your previous job?

What was the most difficult project you ever handled, and how did your management style bring the project to a successful close.

How do you deal with stress?

Given two binary trees check if one is subtree of other.

Verify if given series is a Fibonacci series or not.

Reverse a doubly linked list.

Given a BST with integer values and a key, find the closest node to the key. eg. for BST 1 4 7 15 and key 8 node 7 is to be returned.

Some design based questions.

multi threading

 (1)Find maximum height of BST. This is easy using recursion. Then he asked me to do it iteratively, which I somehow managed to solve. (2)The Dutch flag problem. This was not tough. But the next question was tough. It was about finding particular keys in a dictionary. They have a custom function that tells you if a key is in the dictionary and you to find out if for given input, you get required output. For example -- The dictionary is like: {hi,hello,sir,how, are, you} And you have a function isWord(x) that tells you if a particular word is in that dictinary. So if the input is hisirhowareyou the output must be hi sir how are you I couldn't solve this problem. :(

<http://www.geeksforgeeks.org/dynamic-programming-set-32-word-break-problem/>

 system design on computer

determine if two rectangles overlap

Find the Least common ancestor for two given nodes in a tree. I solved this question using double recursion but the interviewer was expecting me to solve it in a better way.

if a string is palindrome or not?

 to design two functions that implement auto prediction feature when user input a few letters in search box.

To remove every multiple i, j, k ..... elements from a list. To add 2 fractions and reduce it to the simplest form

find the lowest common ancestor of two nodes in a binary tree

Convert a string to an intege

Method to find all duplicates of letters in a string

How to retrieve a file with a specific string or keyword using UNIX command line

grep -r "expression to find"

insert a new node into an ascending sorted linked-list.

Find the least common ancestor of a node in a tree etc

Write a enqueue and dequeue using linked lists, resolve deadlock on it etc

Assuming a preexisting list of 100 words, how would you efficiently see if a word received from input is an anagram of any of the 100 words?

Given two binary trees check if one is subtree of other. Verify if given series is a Fibonacci series or not. Reverse a doubly linked list. Given a BST with integer values and a key, find the closest node to the key. eg. for BST 1 4 7 15 and key 8 node 7 is to be returned. Some design based questions.

Lecture—4 hours. Prerequisite: Mathematics 21C, 22A, programming course; Applied Science Engineering 115 recommended. Operations research. Optimization techniques with a focus on dynamic programming in treating deterministic, stochastic, and adaptive multistage decision processes. Brief review of linear programming and non-linear programming. Applications in transportation networks and other civil infrastructure systems