Software Engineer pre-screen questions

Candidate Name: George Dong

Candidate Contact Number: 678 997 0322

Date: 7/22/2018

Recruiter: Ernest Wesson

1. Are you legally authorized to work in the United States? YES
2. Will you now or in the future require sponsorship for employment visa status (e.g., H-1B visa status)? NO
3. Do you have C and C++ 11 standards coding experience? Please indicate the level of experience for each, i.e. entry level, intermediate, proficient or expert.

I do have experience in both C and C++. I have an intermediate level of experience for C and an entry level of experience for C++.

1. Do you have Windows and Linux Platform experience? Are you a user or developer?

I have plenty of Windows Platform experience, and I have a small amount of Linux Platform experience, both as a user.

1. Python, entry level, intermediate, proficient or expert? Please describe the following experience in detail.

I have an entry level of Python experience. During my college coursework, I have worked on a few small projects in Python, and I have had enough experience to have my solution to the coding exercise done in Python.

1. Please describe one of your current projects that you are currently working on and what your involvement was and how you accomplished the project? Please be as detailed as possible.

The current project that I am working on is a research project at the Georgia Institute of Technology. We are working with an imaging technique called MFPI-PC, which normally involves the usage of a regular disk illumination. The project involves researching the benefits of switching to a ring of light for illumination. My involvement was taking the existing MATLAB code that runs simulations for disk illumination and adapting it to the ring case. From there, I ran countless simulations and collected a large amount of data with various parameters in order to find the optimal usage of ring illumination. These parameters included random noise levels, and the radius of the inner and outer rings, and the specific method used. I compared the results of the imaging using RMSE compared to the ideal image, and searched for patterns in the data collected. I was successful in determining the best method. I was also able to map out the relationship between the RMSE and the radius parameters. We are currently writing a paper about our results.