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Interview Practice 02/25: The House of the Weird Suns

Jonah & Robert Signal Data Science < signaldatascience@gmail.com> Thu, Feb 25, 2016 at 8:20 PM To: David Bolin <avid@bolin.at>, Ali Bagherpour <ali.bagherp@gmail.com>, Andrew Ho <Kironide@gmail.com>, Chad Groft <clgroft@gmail.com>, Jacob Pekarek <jpekarek@trinity.edu>, Jaiwithani <jaiwithani@gmail.com>, James Cook <cookjw@gmail.com>, Linchuan Zhang <email.linch@gmail.com>, Matthew Gentzel <magw6270@terpmail.umd.edu>, Olivia Schaefer <taygetea@gmail.com>, Robert Cordwell <cordwell@gmail.com>, Tom Guo <tomquo4@gmail.com>, Trevor Murphy <trevor.m.murphy@gmail.com>, Satvik Beri <satvik.beri@gmail.com>, jessicatysu@gmail.com, bbi5291@gmail.com, chrchang523@gmail.com

Hello Friends.

This Saturday, we're going to be practicing whiteboard questions at Twitter HQ!

Whiteboards. If you've ever had or looked for a CS job, you're familiar with this sort of interview. Someone hands you a dry-erase marker and a question, and you have to write up a solution on the fly while explaining what you're doing. Nasty? Absolutely! Are you going to do them to get a data science job? Absolutely!

Fortunately, just like any other type of interview, being able to whiteboard effectively is a learned skill. We're going to do a similar format as last time, with instruction followed by breaking into pairs and interviewing.

Logistics

We're going to be hosting at Twitter HQ, 12 noon - 5:00. It's a quick BART trip, and Jessica and I will be there to let people in. I will also be staying until at least 7 to answer individual guestions & hold office hours; people will probably break off in groups to go to dinner & hang out in SF.

- 12 2: Panel Discussion. Jessica will be interviewing me in front of you guys, we'll talk about interview techniques & things to be aware of
- 2 5: Mock interviews. These will be 30 minutes apiece; because these will take place in multiple rooms you need to set your own timers and move to the next room on time. Once again, I recommend recording the interviews & leaving 10 minutes at the end for feedback.

Special Guests

We're rolling out the big guns for this one, so if you have any questions about problem-solving in general this is the time to ask.

Jessica Su, Quora celebrity & CS grad student @ Stanford. Super generous host who's letting us all hang out at

Brian Bi, programmer @ Google who medaled twice at the International Computing Olympiad. Good at stuff Christopher Chang, mathematician & programmer @ Human Longevity. Oh, and he got a gold medal at the International Math Olympiad.

Preparation

Please come prepared with 1-2 of your own questions! It can be light programming, SQL, or even an analysis / math problem.

For example, here's a good whiteboard SQL question. I'd start with the following intro ->There's a table, friend requests sent, which has three columns: sending user ID, receiving user ID, and a timestamp. There's also a second table, friend requests accepted, which has the sending user ID, receiving user ID, and a timestamp.

Then I'd ask questions, get the interviewee to write code, and see that it's correct

->What % of friend requests are accepted?

- -> Can you find me a list of users, ordered by number of declined friend requests?
- -> Can you find me a list of users who have had every friend request they've sent accepted?

For particularly skilled candidates, I might throw in a complication. The friend_requests_sent table has a bug and is logging every request twice. So I'd say something like "you run this query, and you find that 40% of friend requests are accepted. This seems low. What might you try to validate the data?"

A good whiteboard analysis / math question would be "How many golf balls can fit in a 747? Explain your reasoning." Then the candidate gets up, has to draw a picture of a 747 and calculate out scratchwork. Meanwhile I'm assessing to see if his or her assumptions are roughly accurate and if he or she is thinking in a clear and logical way.

Best, Robert (505) 228-9549