You Must Be Joking... Interview This

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ABSTRACT

The goal of this column this time was to address major scientific issues and propose novel scientific methods for doing the same thing under different names. However, it turned out to be too complicated as it required mastery of the english alphabet. Then, I had an epiphany (greek word): Why propose something new, when you can complain about something that already exists? I think I am turning into an angry old man prematurely.

1. WHAT ARE THE COMPANIES THINKING?

Is really C++ inheritance rules or the Erlang formula the way to assess the quality of a graduated PhD student?

Seriously, I don't get it.

I recently had some second-hand experiences with these (new ?) interviewing approaches from a wide range of companies. Several awesome PhD students were looking for jobs lately, and they did find awesome jobs, so there is a happy end to this story. But, that's not the point. Students who completed serious PhD works had to brush up on C++ programming, fundamentals on Operating Systems, Networks, Databases. Some students spend almost a month on this preparation.

Some of you may say that some basic knowledge is required and the usual self-righteous yak-yak. Clearly, some background knowledge is required, and this is why the students have a full record of courses and exams that they have passed. Why is it expected from a PhD student who spent 4 years innovating, thinking big about the future, and potentially programming all of their PhD code in python, to remember C++ syntax? Or ask them to write on the board a linked list program? It is simply insulting and inappropriate. If you want to see how someone thinks, you don't need to obfuscate the process with the specifics of a particular language.

The surprising thing is that these were large companies, not resource-starved and time-pressured start-ups. They were the usual suspects of hiring, with R and R&D departments, and thousands of employees (though I can't say for sure which groups exactly interviewed my students).

I find it even more surprising given that it has arguably become a seller's market. Here, the sellers are the students who are selling themselves. (Don't laugh, all professions are a monetary transaction for a service.) I am certainly not the only person who receives emails and calls from companies that want to hire one's students. You would expect that companies would smarten up and try to get talent where they can, even if the talent is not familiar with the specific programming language of the company.

2. INTERVIEWS GONE WILD

I admit that I am not an expert in human resources. My only connection to human resources is through my sister, who is the HR top honcho of a consortium of companies. She started as a hardcore chemical engineer, and slowly drifted to management. She taught me how to play tennis. There are many fascinating things that I could tell you about my sister, (for example, she still bullies me around as an older sister), but it would be besides the point here. In contrast, what would be right on the money is a suggestion of how an interview should be conducted.

I heard people say that getting someone to explain something is often enough to see how they think. The claim is that, in that process, you can ask questions, try to throw them off, try to see if they can think on their toes, the works. But, come on, this is too straightforward to be interesting and, thus, of any value.

But, don't despair. Surprisingly, I think I have it.

3. HE HAS IT

I boldly propose a revolutionary approach to job interviews. My rationale (if we assume I have one) is that: (a) interviews should reflect real life, and (b) evaluating the character of the employee is just as important.

For a pretense of thoroughness, I am presenting my ideas in four groups according to their evaluation goals.

3.1 Evaluating Intelligence

Solving puzzles is the best way of finding out how people think in terms of: (a) creativity, and (b) thinking outside the box. And the good thing, is that puzzles do not require any specific domain knowledge. It's pure intelligence.

To give you an idea of how powerful a puzzle can be, here are some examples.

Puzzle 1: A lawyer, an engineer, and a manager are in a spacecraft towards Mars. The spacecraft explodes. Who will make more money out of this?

Answer: The right answer is "none", since they will all be dead.

Puzzle 2: If none of them dies, who will most likely have the worst hygiene?

Answer: This is more of an open-ended question. If nothing else, one will find if the candidate brushes his/her teeth regularly.

Puzzle 3: You are in a boat in a circular lake, and someone is chasing you from the shore. You need to pee badly. What is the best way to steer the boat to ensure maximum distance from your pursuer, when you reach the shore?

Answer: It is a trick question. There is no reason to go to the shore, as you can relieve yourself in the lake. As a bonus, with this question, you can learn the environmental conscience of the candidate.

There are many other puzzles that one can find on the web, but the puzzles above are particularly good. I have been told that some companies do ask puzzle-kind of questions, but I doubt they ask the puzzles above.

3.2 Real life problem solving

Intelligence and scientific knowledge have nothing on streetsmarts. Think, how many times have you felt like strangling a scientifically-brilliant colleague because s/he was being an idiot? Exactly what I thought.

Here are some powerful and entertaining real-life tests I highly recommend for any interviewer.

1. Ask them to program on a computer that is unplugged and time how quickly they will find the problem.

   For a senior engineer position, connect the computer plug to a switched-off surge-protector without a LED indication.

2. Email them a misleading map of the company and see when and how they will figure things out. A pair of binoculars may be necessary to follow the trajectory of the candidate around the company area.

3. Lock them in the basement after you have smoothly taken their cellphone away. Give them a pair of pliers, duct tape, and a piece of wire. Focus more on the process of finding an escape route, and less on their actual escape.

3.3 Management and Communication Skills

This category examines whether the candidate possesses the critical skills of: (a) managing a crowd or an angry mob, (b) making stuff up, (c) refuting obvious self-evident facts, and (d) maintaining one's cool when the world around is collapsing.

The point of all these neat strategies listed below is to see how the candidate will react.

1. During their talk, have someone switch off the power in the room.

2. During their talk, stand up and angrily dismiss the importance of the problem, the novelty of the solution, the validity of the results, or all three.

3. Have a colleague fake a heart attack during their talk. Give extra points, if the candidate gives mouth-to-mouth resuscitation.

4. Sit at the back of the room, make noise, talk, and laugh constantly.

5. In your one-to-one meeting tell them you are actively investigating something preposterous (e.g. passively active networks, passive aggressive networks, protocol security based on word of mouth and phone calls). If they politely go along, then, over lunch, tell your other colleagues that the candidate has just expressed their big admiration for the lame idea. For an extra touch, have your colleagues give weird looks and pretend that they are shocked.

6. Ask people to bring their laptop[1]. Run a layer 2 monitor and look for the wireless Access Point association messages, which will tell you the last n places they visited. Tell them (e.g. "how did you like your last ebay buy", "do you always check CNN?").

3.4 Assessing the character of the candidate

The best way to assess character is through real scenarios. Forget the hypothetical scenarios stuff. Throw them into the fire, I say.

1. Show up with a spinach leaf in your teeth. Have a long discussion and smile a lot. If they don't say anything, tell them you are taking them to visit your CEO, and mention that this CEO has fired people for showing up with their ties badly knotted.

2. Let them without lunch through a series of supposingly impossible-to-reschedule meetings. Examine if they can concentrate. Measure how long it takes them to ask for a candy from the bowl on your desk. Or leave them unattended in your office, and see if they will take the candy without asking.

3. Let them wait in the corridor for a ridiculously long time, and see what they do.

4. Before dinner, make a speech about the importance of virtue, hard work, and values in a person, and then ask them incredulously if they want wine with dinner or whether they smoke. (It is good to ensure through another colleague that they do drink or smoke.)

5. At the end of the dinner, propose a deal: they will go along with confirming that the dinner was twice as expensive and you can split the extra money. Include the waiter to make it more believable. For an accounting position, agreeing may actually be a plus.

I would be very interested to hear interesting interview experiences, both as an interviewer or as an interviewee. Similarly, I would be happy to hear other people's opinions about interviews. I also reserve the right to ignore your email, especially if it happens to disagree with my views. As someone famous[2] said: "I disagree with what you say, and I will fight to keep your views away from my column".

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[1]Courtesy of the demented genius of Jon Crowcroft.

[2]They can't have been that famous as I can't quite remember their name.