Tech employers say good people are hard to find. Job hunters see a broken hiring process. Both sides need to shake their frustration and find new ways to connect.

By Laurianne McLaughlin
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IT talent shortage or onerous hiring process? Your view may depend on whether you’re a hiring manager or a job seeker. For the 278 business technology professionals surveyed for our 2014 InformationWeek IT Skills Crunch Survey, the talent crunch definitely exists:

>> 73% of respondents at companies with fewer than 1,000 employees and 88% at larger companies say they see an IT talent shortage.

>> Just 19% of respondents at small companies and 15% at large companies say they’re confident they can retain IT staff.

>> 36% of respondents at small companies and 45% at large companies say HR’s lack of understanding of the tech talent market is an impediment to hiring.

In this report we discuss key trends, including:

>> A strong focus on specialized skill sets at the expense of more generalized tech experience

>> A lack of flexibility in the hiring process

>> Creative ways companies are marketing themselves to attract top talent

We also offer nine job hunting tips from recruiters and top CIOs for those just starting out in the IT field.

Respondent breakdown: Thirty-eight percent have 5,000 or more employees; 30% are over 10,000. Financial services firms and government are well represented, and 63% are IT director/manager or IT executive management (C-level/VP) level.
Survey Name  InformationWeek 2014 IT Skills Crunch Survey

Survey Date  August 2014

Region  North America

Number of Respondents  278

Purpose  To gauge the state of IT staffing in the enterprise and determine hiring, training, and retention practices

Methodology  InformationWeek surveyed business technology decision-makers at North American organizations. The survey was conducted online, and respondents were recruited via an email invitation containing an embedded link to the survey. The email invitation was sent to qualified InformationWeek subscribers.
Talk to employers and job hunters about the state of the IT talent market, and you hear two words repeatedly: speed and pain. IT leaders must staff projects quickly, often requiring specialized skills that most job hunters — especially generalists or those looking to change tech tracks — don’t have.

As a result, hiring organizations see an IT talent shortage, while job hunters insist that employers are botching the hiring process, screening out too many good candidates. Both sides agree on one thing: They’re frustrated.

Third-party recruiters say that while IT leaders cry shortage and job hunters cry foul, the job slots sit empty for too long, hurting business results and team morale. But they doubt the picture will change unless hiring managers get more creative and realistic, and job hunters come to a fuller understanding of market realities.

Which brings us back to the question: Is there an IT talent crunch? It’s a simple question with no simple answer. InformationWeek asked the IT community: Do you see an IT talent shortage today in one or more technology areas important to your business?

Yes, said 73% of respondents at companies with fewer than 1,000 employees, and 88% of respondents at larger companies.

But is a botched hiring process aggravating this talent shortfall? Business technologists are sharply divided: About half of survey respondents at those larger companies see it as broken or too stringent, while 45% of the folks at smaller companies see things that way.

Any discussion of IT hiring must include what companies are willing to pay to fill open positions. Ron Hira, a professor of public policy at Howard University and a longtime critic of the H-1B visa program, recently called the IT talent shortage “imaginary,” a front for companies that want to hire relatively inexpensive
foreign guest workers. Norman Matloff, a computer science professor at the University of California at Davis who collaborates with Hira, takes the argument a step further: “The biggest single problem, as I’ve said before, is age discrimination,” Matloff says. “The employers typically define job openings to be entry level, automatically rejecting those at the midcareer level.”

Another disliked hiring tactic is a “purple squirrel” hunt, whereby companies seek a job candidate whose mix of skills and experience is impossible to find. “The ‘purple squirrel’ job postings arise in many cases because HR needs a way to thin out the mountains of applicants that they have,” Matloff says. “So again, the claimed shortage is actually an embarrassment of riches.”

Talk with employers and recruiters and you hear a more nuanced story. It’s not just about how many IT job applicants are in the US talent pool, or about salaries, but how the IT hiring process has changed in recent years. Like them or not, would-be applicants need to know the rules of today’s employment game.

FAST FACT

33% of the respondents to our IT Skills Crunch Survey who work at larger companies blamed the IT talent shortage for missed revenue opportunities.

**Figure 2**

**IT Hiring Process**

How would you describe the IT hiring process at your organization?

<table>
<thead>
<tr>
<th></th>
<th>&lt;1,000 Employees</th>
<th>1,000+ Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generally effective and fair for our organization and for job seekers</td>
<td>55%</td>
<td>49%</td>
</tr>
<tr>
<td>Too stringent; many good people get screened out by HR or recruiters</td>
<td>23%</td>
<td>16%</td>
</tr>
<tr>
<td>Broken</td>
<td>29%</td>
<td>28%</td>
</tr>
</tbody>
</table>

**Need For Speed**

“This kind of feels like 1999 or 2007,” says Matt Rivera, VP of marketing at IT staffing firm Yoh. “… The technologies are moving so fast, it’s hard for [employers and job hunters] to keep up. It’s hard to engage that talent pool far enough ahead of the need.”

IT organizations are under intense pressure to deliver projects faster than before — and that need for speed necessarily influences IT hiring. The IT generalists, and even some topic generalists, such as infrastructure managers, have found their roles left by the side of the road, as project leaders hire for deep experience in specific niches, such as cloud security, DevOps, and data analysis and architecture.

“There’s a lot of desperation on both sides out there,” Rivera says. One sign of that desperation: 63% of IT hiring managers reported...
catching lies on resumés, according to a recent Harris Poll/CareerBuilder survey. IT candidates rank as the third biggest liars; only financial services and hospitality candidates fib more, according to the survey.

“The trend has gone into more specialized skill sets,” says Asal Naraghi, director of talent acquisition for healthcare services company Best Doctors. As an HR pro, she “absolutely” sees an IT talent shortage. “In terms of being able to innovate, the tools that are out there are more complex,” she says. “What are your competitors doing? You have to keep up with that. We also focus on people who are a culture fit with us and are passionate about our mission.”

She gives the example of a recent search for a user-experience expert, a talent category that’s in high demand as companies prioritize mobile development. The position had been outsourced — and after interviews, the company kept it outsourced, she says, because it didn’t find a person with deep skills and a fit with the company’s mission.

CIOs echo the need for deep experience.

“The broader skill sets, I think you’ll see those in analyst roles, Scrum-master-type roles … some management roles,” says David Wright, CIO of McGraw-Hill Education. “But more and more, the hands-on coders, we’re looking for people who are just really deep in whatever discipline we’re trying to hire.”

Giorgos Zacharia, CTO of online travel company Kayak, says he’s having a hard time finding UI engineers and mobile developers, not-
Seeking Mr. Right

For employers, hiring can feel like dating: You spend a long time looking for the perfect match. But how many chances will you take? How flexible will employers be during the hiring process? This is where both the recruiters and the job seekers voice exasperation.

Tracy Cashman, senior VP and partner in the

Figure 4

Talent Recruitment and Retention

Which steps are you taking to attract and retain IT talent?

<table>
<thead>
<tr>
<th>Step</th>
<th>&lt;1,000 Employees</th>
<th>1,000+ Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased training to “grow our own” for some skills</td>
<td>51%</td>
<td>60%</td>
</tr>
<tr>
<td>More flexible schedules</td>
<td>57%</td>
<td>66%</td>
</tr>
<tr>
<td>Provide comp time</td>
<td>22%</td>
<td>21%</td>
</tr>
<tr>
<td>Skill-specific pay hikes or bonuses</td>
<td>21%</td>
<td>19%</td>
</tr>
<tr>
<td>Full-time telecommuting</td>
<td>19%</td>
<td>19%</td>
</tr>
<tr>
<td>Part-time work</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>IT salary hikes across the board</td>
<td>14%</td>
<td>12%</td>
</tr>
<tr>
<td>College internships</td>
<td>14%</td>
<td>18%</td>
</tr>
<tr>
<td>Better healthcare benefits</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td>Increased time off</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Opened new branch offices</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>Stock options or incentives</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Unlimited vacation</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Note: Multiple responses allowed

Base: 109 respondents at organizations with fewer than 1,000 employees and 169 with 1,000 or more employees

Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014
IT search practice of WinterWyman, sees a genuine talent shortage. “There are more jobs than people who are skilled,” she says. While she’s starting to see an uptick in engineering graduates, “we’ve been feeling this since the [dot-com] bubble burst,” Cashman says, when college students were worried that all IT jobs would move to India. “And we’re still fighting that,” she says.

On the flip side, some employers have become “persnickety,” says Cashman, who advises CIOs to remove their perfection goggles. Companies wait too long to fill open positions, which not only hurts the business but also heaps extra work on the existing team. Delays also turn off qualified candidates, who assume that if a slot is open too long it’s like an unsold house that has “issues.”

You don’t see the “best available athlete” mentality, Cashman laments, referring to the professional sports strategy of signing the best player available rather than hiring a lesser player to fill a specific position. Hire a smart, creative person who’s eager to learn, and train that person on the rest, she advises clients, before the other valuable people on your team walk out or you blow the business deadline.

What are the ramifications of the so-called IT talent shortage and unfilled slots? Among the respondents to our survey who work at larger companies, 79% cited delayed IT projects, 48% cited poor-quality IT projects, and 33% cited missed revenue opportunities. That last point should grab IT leaders’ attention; it’s sure to grab the CEO’s.

The only category where Cashman sees IT groups regularly willing to bring in people and train them for the job is for help desk positions, which are among the lowest-paying, least-training-intensive positions.

Some employers must experience serious pain — a missed revenue target, a delayed product launch, or a customer service blow-up — before taking off the hiring perfection
goggles. “Even then,” Cashman says, “contractors often are brought in to fix the pain. It’s wait, wait, hurry.”

Holes In The Screens
That scenario sounds familiar to IT veteran Stuart Lathrop, now a marketing enterprise solution architect for ESAB, a welding and automation equipment supply company.

Midcareer IT pros know Lathrop’s recent job hunt story all too well. Job hunters struggle to make it through the first electronic filters of resumés, and when they do, the follow-up phone screenings prove frustrating. Interviewers show little willingness to bend on specific technical requirements or to consider transferable skills.

In 2012, Lathrop voluntarily left a full-time IT job (at a time of change within the company), did independent consulting for about a year, then started to look for a new full-time role in the fall of 2013.

“The only people I could have a conversation with were headhunters and recruiters,” he says. “The on-site interview would be the first time I would talk to anyone who had IT experience.”

He cast a wide net online and generated an application-response rate of 12% to 15%. But the callbacks were mostly for junior roles, for which he knew he was overqualified. “If I’m

Figure 6

Impact of IT Skills Shortage
Which business impacts have you seen in the past 18 months because of an IT talent shortage?

<table>
<thead>
<tr>
<th>Impact</th>
<th>&lt;1,000 Employees</th>
<th>1,000+ Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delayed IT projects</td>
<td>70%</td>
<td>79%</td>
</tr>
<tr>
<td>Missed revenue opportunities</td>
<td>33%</td>
<td>51%</td>
</tr>
<tr>
<td>Poor-quality IT projects</td>
<td>43%</td>
<td>48%</td>
</tr>
<tr>
<td>Canceled IT projects</td>
<td>19%</td>
<td>15%</td>
</tr>
<tr>
<td>Other (multiple responses)</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>None</td>
<td>3%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Note: Multiple responses allowed
Base: 80 respondents at organizations experiencing an IT talent shortage with fewer than 1,000 employees and 148 with 1,000 or more employees
Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014
hiring, I don’t want someone to undersell themselves to fill a role,” Lathrop says. “They’re going to be bored and won’t be with you long.”

Lathrop won his current role after a contact recommended him to come in and solve a thorny problem. He solved the problem and worked as a contractor for about eight months, at which point ESAB created a position for him. “That’s a trend, bringing someone in as a contractor,” he says. “Frankly I’ve used it myself.”

What concerns Lathrop is the disconnect between HR and IT. He cites trust and language issues. For instance, if he’s looking at the résumé of someone who says he has run an Oracle shop, using versions X through Y of a system, he would realize why that experience is a good match, even for a role keyed to a different software system. “I know what’s involved in running an Oracle shop and having that kind of longevity,” he says. “HR doesn’t understand our side of the business well enough to make those interpretations.”

A better approach, Lathrop says, would be for HR to sort candidates into an A pile and a B pile and let IT see all of them, before people are green- or red-lighted for in-person interviews. But that, of course, takes time. (As this story was publishing, Lathrop learned his full-time job at ESAB is going away as part of a reorganization. In November, he will once again be a contractor with the company.)

Adrienne McDonald had 17 years of IT experience and was working in a director-level infrastructure service delivery position for Time Warner Cable, running back-office disaster recovery efforts, when she began hunting for a new job in the fall of 2013 because of a reorganization.

“I was surprised when I came out at the difference in job hunting versus 2002,” McDonald says. “About a third of the time, people contacted me for positions that were completely inappropriate.” Although she was
seeking a senior infrastructure position, she
got calls for everything from entry-level busi-
ness analyst to data mining roles. Whatever
the recruiters were using to match job open-
ings with candidates, it wasn’t working. “I
wanted to ask about the algorithm,” she says.
McDonald was careful to apply only for po-
sitions in her wheelhouse, so she got a call
back from an outside recruiter or HR pro
about 70% of the time, she estimates. But to
no avail. “When I got on the phone it was
painful,” she says.
The recruiters were always in a rush, McDon-
ald says, but they weren’t asking the ques-
tions that would have matched her or ruled
her out in an informed way. “It’s one of those
pay now or pay later situations,” she says.
McDonald didn’t find the right position, and
in December 2013 set up her own consulting
firm, Transformation Leadership, where she
does IT transformation and leadership develop-
ment projects. Her decision to go solo —
the same route Lathrop took earlier in his ca-
career — isn’t unusual among midlevel IT pros.
Some move back and forth several times be-

Figure 8

Ability to Hire: <1,000 Employees
How would you characterize your ability to hire in the following areas?

<table>
<thead>
<tr>
<th>Area</th>
<th>Easy</th>
<th>We have enough people but we can’t afford them</th>
<th>Moderately difficult</th>
<th>Can’t find people at any price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database, NoSQL (Hadoop, MongoDB, Cassandra)</td>
<td>20%</td>
<td>14%</td>
<td>44%</td>
<td>22%</td>
</tr>
<tr>
<td>Security</td>
<td>15%</td>
<td>19%</td>
<td>52%</td>
<td>14%</td>
</tr>
<tr>
<td>IT architect</td>
<td>14%</td>
<td>18%</td>
<td>56%</td>
<td>12%</td>
</tr>
<tr>
<td>Data analysis and architecture</td>
<td>18%</td>
<td>19%</td>
<td>51%</td>
<td>12%</td>
</tr>
<tr>
<td>Network engineer with virtualization and private cloud skills</td>
<td>19%</td>
<td>24%</td>
<td>46%</td>
<td>11%</td>
</tr>
<tr>
<td>Mobile/BIYD program support</td>
<td>17%</td>
<td>9%</td>
<td>48%</td>
<td>9%</td>
</tr>
<tr>
<td>ERP, CRM, and similar business applications</td>
<td>23%</td>
<td>22%</td>
<td>42%</td>
<td>9%</td>
</tr>
<tr>
<td>Application development, mobile apps</td>
<td>14%</td>
<td>19%</td>
<td>58%</td>
<td>9%</td>
</tr>
<tr>
<td>Database, conventional (Oracle, SQL)</td>
<td>39%</td>
<td>24%</td>
<td>29%</td>
<td>8%</td>
</tr>
<tr>
<td>DevOps</td>
<td>23%</td>
<td>31%</td>
<td>38%</td>
<td>8%</td>
</tr>
<tr>
<td>Functional tech specialist (e.g., marketing, HR)</td>
<td>30%</td>
<td>15%</td>
<td>49%</td>
<td>6%</td>
</tr>
<tr>
<td>Application development, web/e-commerce</td>
<td>22%</td>
<td>22%</td>
<td>50%</td>
<td>6%</td>
</tr>
<tr>
<td>Executive IT leadership</td>
<td>26%</td>
<td>18%</td>
<td>51%</td>
<td>5%</td>
</tr>
<tr>
<td>Project management</td>
<td>14%</td>
<td>19%</td>
<td>45%</td>
<td>9%</td>
</tr>
<tr>
<td>APIs</td>
<td>21%</td>
<td>9%</td>
<td>62%</td>
<td>6%</td>
</tr>
<tr>
<td>Application development, enterprise systems</td>
<td>16%</td>
<td>11%</td>
<td>70%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Base: Respondents at organizations with fewer than 1,000 employees hiring for each skill; varies Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014

FAST FACT
50% of respondents at large companies cited low salaries as top obstacle to IT hiring.
spoke with — is that it has become easier for IT pros to switch between industries, if you have deep experience in a desired skill. “Almost no one in our engineering team had travel experience,” says Kayak’s Zacharia. “We believe good technical skills easily transfer.”

Especially when it comes to red-hot skills such as big data, companies have had to become more flexible on industry knowledge. “I tell them if they’re looking for consumer packaged goods experience, they’ll be looking a very long time,” says Linda Burtch, founder and managing director of executive recruiting firm Burtch Works, which specializes in data analysis roles. Are companies now wise to that reality? “They tend not to be at the beginning of the process,” she says, “but then they get there.”

Companies Innovate To Draw Talent

Some companies are getting creative about marketing themselves to and courting top talent.

Online retailer Gilt hired Lauri Apple as its technology evangelist about two years ago. Her job: to promote the cool projects and technologies that power Gilt.

“Really great talent will find a job,” Apple says. “They’re working already. You have to think of getting those folks as a long-term strategy, so you can get them when they’re ready.”

For example, Gilt offers day-long courses on hot skills such as Scala and Hadoop, taught by experts, and has tech gurus such as former Netflix cloud architect Adrian Cockcroft come in to speak. Gilt invites the local tech community to
attend and builds in time for networking.

“What I’m set up to do is raise awareness of what’s going on here, … and hopefully that will inspire people to apply,” Apple says. Does she know anyone else in a similar role? No — but she’s getting more calls to discuss it. “I think you’re going to see more of this competitive culture develop,” she says.

Another best practice is to get involved with the informal networks that IT pros develop within their specialty areas. (You’ve experienced one if you’ve been to a cloud computing conference.) “We’ve seen companies be successful networking into those groups,” says Yoh’s Rivera, referring to events, user groups, and associations. “Get to know those groups … and then be respectful when you have openings.” It’s a give and take — companies need to offer up their time and expertise to the community in order to connect with potential hires.

Meantime, don’t just recycle old job descriptions, Cashman warns. IT and HR need to talk about the status of the project they’re hiring for and the specific project challenges.

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**Hiring Obstacles**

What factors other than an IT talent shortage create significant obstacles to hiring at your organization?

<table>
<thead>
<tr>
<th>Obstacle</th>
<th>&lt;1,000 Employees</th>
<th>1,000+ Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our salaries are too low</td>
<td>47%</td>
<td>50%</td>
</tr>
<tr>
<td>Our HR department doesn’t understand the tech talent market</td>
<td>36%</td>
<td>45%</td>
</tr>
<tr>
<td>We’re not seen as a cool or innovative place to work</td>
<td>30%</td>
<td>36%</td>
</tr>
<tr>
<td>We’re unrealistic about the list of skills and years of experience we expect</td>
<td>29%</td>
<td>41%</td>
</tr>
<tr>
<td>Our IT leadership isn’t involved enough in the IT hiring process</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>No apparent obstacles</td>
<td>9%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Note: Multiple responses allowed

Base: 109 respondents at organizations with fewer than 1,000 employees and 169 with 1,000 or more employees

Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014
And don’t overload job descriptions with a dream list of skills. “If you miss the passive job seeker who thinks, ‘They won’t go for me because I don’t have three of the 10 things required,’ you do yourself a disservice,” Cashman says.

Think of your job description as a place to sell your organization’s culture. Gilt sells the fact that its tech people “get to work with a CTO who still codes,” Apple says. Best Doctors touts its culture of tinkering.

When we asked in our survey about top obstacles to IT hiring, 50% of respondents at large companies cited low salaries. A significant 41% cited unrealistic expectations about skills and experience — expectations that feed job descriptions.

Both IT pros and hiring managers must adapt to the fact that tech skills are changing faster than ever before. In the past, a networking or security pro could confidently craft a three-, five-, and maybe 10-year career plan. Those long paths aren’t clear anymore.

Your next job hunt will be different, as McDonald found. Your technology niche may start hot and turn cool. Personal networking and project portfolios are as important as ever, even for entry-level roles. Leaders like Bill Martin, CIO of Royal Caribbean Cruises Ltd., say that’s just how IT careers work in the age of digital business.

“I’ve been the CIO at Royal Caribbean for seven years,” says Martin, “and I like to tell people I’m in my third generation of IT, because it cycles about every three years, and the toolsets are completely different. How you approach problems is different. How the business looks at technology changes. If you want a career in IT, you need to be ready to change.”

### Figure 11

**Data Analytics Skills**

Specifically in data analytics, in which of the following areas is talent significantly hard to find?

<table>
<thead>
<tr>
<th></th>
<th>&lt;1,000 Employees</th>
<th>1,000+ Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data architecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data visualization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Multiple responses allowed

Base: 48 respondents at organizations with fewer than 1,000 employees and 96 with 1,000 or more employees experiencing difficulty hiring data analytics pros

Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014
9 IT Job Hunting Tips For New Grads

While midcareer IT pros often lament lacking precisely the right skills for an IT opening, beginning IT pros have the opposite problem—a fairly blank experience slate. How do you find your way through IT’s notoriously tough maze of time-pressed recruiters and human resources screeners when your résumé is so short?

We talked to recruiters and top CIOs to get their advice on how beginning IT pros can prepare to stand out in the interview process.

1. Network, network, network.
   More than ever, it is not what you know, but who you know, say all sides—hiring organizations, recruiters, and job seekers. “The best way to get into Kayak is to have someone refer you,” says Kayak CTO Giorgos Zacharia.
   Use alumni groups of every kind, LinkedIn, and volunteer work to connect with people inside target companies who can get you past the initial screening.

2. Contribute to open source projects.
   Seek out volunteer work on open source projects (maybe you can connect with people via GitHub, for example.) This not only helps you build a body of work, but also helps you meet specialists in a desired area such as mobile development. Even at entry level, employers expect you to have a portfolio of project work. Internship work also counts. “Show verve and a passion to learn,” says Asal Naraghi, director of talent acquisition for healthcare services company Best Doctors.

3. Display energy and passion for tech.
   Did you beat a school record in a charity fundraiser? Did you do robotics competitions? Have examples. Here’s what ConocoPhillips CIO Mike Pfister says about standing out in the interview process as a new grad: “Most important is just enthusiasm for technology.”

4. Prepare to code and take tests.
   Expect to face some kind of test of your technical knowledge. And no, you can’t study for it. At Best Doctors, you’ll have to display tech acumen over the phone in interview round one, and you may have to whiteboard in front of the project team in round two, Naraghi says.
   Companies may also ask you to take a written test that involves logic and problem-solving, says Tracy Cashman, senior VP and partner in the IT search practice of Winter-Wyman in Boston.

5. Show the four C’s.
   Recruiters and IT leaders use the “C” words to describe great candidates: creative, consis-
tent, curious — with great communication skills. Can you demonstrate those qualities through student leadership roles? Hobbies?

Think broadly.

One example: Big data leaders and CIOs say that a fantasy baseball habit is a legitimate way to show curiosity and passion for statistical analysis.

6. Know the business and its projects.

Learn not only about the business but also the kind of projects IT people there grapple with on a daily basis. For example, if you were interviewing with online retailer Gilt, you’d do well to discuss online traffic spikes, says Lauri Apple, technology evangelism specialist.

“During the whole interview process, ask a lot of questions about the business, as opposed to letting it be a traditional Q&A process,” advises Linda Burtch, founder and managing director of executive recruiting firm Burtch Works. “Go in almost like an outside consultant,” who’d be trying to figure out what makes the business tick and where the pain points are, she says.

“Show some business acumen,” advises Royal Caribbean Cruises CIO Bill Martin.

7. Don’t pretend to know everything.

In fact, it’s mature to realize that you don’t know what you don’t know. “What stands out for me is any evidence that an individual really appreciates they might not have the answer to everything,” says Toromont Industries CIO Mike Cuddy.

8. Look to go deep.

Today’s IT shops don’t just want experience, they want deep experience. It’s important to realize the value of specialization early in your career. “Try to go deep before you go broad,” says McGraw-Hill Education CIO David Wright. “… Make sure you have an anchor that goes deep in one discipline.”

9. Show resiliency.

If it’s your dream job, you don’t have to take no for an answer. Naraghi remembers a time when her company said no to a beginning developer candidate. He came back, having coded something to show that he had the skills to do the necessary work. “That impressed me,” she says — and that person turned out to be a “rock star.”

— Laurianne McLaughlin
Specifically in cloud, in which of the following areas is talent significantly hard to find?

<table>
<thead>
<tr>
<th>Area</th>
<th>&lt;1,000 Employees</th>
<th>1,000+ Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration</td>
<td>59%</td>
<td>62%</td>
</tr>
<tr>
<td>Architecture</td>
<td>55%</td>
<td>62%</td>
</tr>
<tr>
<td>Application development</td>
<td>30%</td>
<td>47%</td>
</tr>
<tr>
<td>Business analysts</td>
<td>25%</td>
<td>28%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Note: Multiple responses allowed
Base: 46 respondents at organizations with fewer than 1,000 employees and 91 with 1,000 or more employees experiencing difficulty hiring cloud pros
Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014
**Figure 13**

**IT Job Descriptions**

How would you characterize most of your organization’s IT job descriptions today in terms of the skills and experience required?

<table>
<thead>
<tr>
<th>Description</th>
<th>&lt;1,000 Employees</th>
<th>1,000+ Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realistic; we’re asking for the skills and industry experience needed</td>
<td><img src="#" alt="Realistic" /> 76%</td>
<td><img src="#" alt="Realistic" /> 73%</td>
</tr>
<tr>
<td>Unrealistic; we ask for levels of skill and experience that rarely exist</td>
<td><img src="#" alt="Unrealistic" /> 24%</td>
<td><img src="#" alt="Unrealistic" /> 27%</td>
</tr>
</tbody>
</table>

Base: 109 respondents at organizations with fewer than 1,000 employees and 169 with 1,000 or more employees

Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014

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*InformationWeek* reports.itnewweek.com
Figure 14

HR Department’s Role in Finding IT Talent
How would you describe your HR department’s role in finding IT talent?

- A creative and valued partner
  - <1,000 Employees: 23%
  - 1,000+ Employees: 28%
- Bureaucratic; HR just handles the paperwork
  - <1,000 Employees: 31%
  - 1,000+ Employees: 44%
- An obstacle to avoid when possible
  - <1,000 Employees: 16%
  - 1,000+ Employees: 21%
- We hire directly; HR comes in for onboarding only
  - <1,000 Employees: 12%
  - 1,000+ Employees: 25%

Base: 109 respondents at organizations with fewer than 1,000 employees and 169 with 1,000 or more employees
Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014
Circumventing HR Recruitment Process

Would you recommend that candidates circumvent the HR recruiting process at your organization and contact IT management directly?

<table>
<thead>
<tr>
<th></th>
<th>&lt;1,000 Employees</th>
<th>1,000+ Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td>48%</td>
</tr>
<tr>
<td>No</td>
<td>52%</td>
<td></td>
</tr>
</tbody>
</table>

Base: 109 respondents at organizations with fewer than 1,000 employees and 169 with 1,000 or more employees

Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014
### Use of Recruiters

Do you use recruiters to find IT candidates?

<table>
<thead>
<tr>
<th></th>
<th>&lt;1,000 Employees</th>
<th>1,000+ Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>51%</td>
<td>64%</td>
</tr>
<tr>
<td>No</td>
<td>36%</td>
<td>49%</td>
</tr>
</tbody>
</table>

Base: 109 respondents at organizations with fewer than 1,000 employees and 169 with 1,000 or more employees

Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014

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Figure 16
Figure 17

<table>
<thead>
<tr>
<th>Tech Career</th>
<th>Base: 109 respondents at organizations with fewer than 1,000 employees and 169 with 1,000 or more employees</th>
<th>Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes; it's a great career option</td>
<td>&lt;1,000 Employees: 58%</td>
<td>1,000+ Employees: 56%</td>
</tr>
<tr>
<td>Yes, but with reservations</td>
<td>&lt;1,000 Employees: 38%</td>
<td>1,000+ Employees: 37%</td>
</tr>
<tr>
<td>No</td>
<td>&lt;1,000 Employees: 4%</td>
<td>1,000+ Employees: 7%</td>
</tr>
</tbody>
</table>
To Counteroffer or Not to Counteroffer
A valued employee you would like to keep comes to you with a job offer and asks you to counter it. You …

- Make the counteroffer and be thankful you could keep the employee
  - <1,000 Employees: 39%
  - 1,000+ Employees: 36%

- Make the counteroffer, but the relationship is damaged
  - <1,000 Employees: 21%
  - 1,000+ Employees: 26%

- Wish the person luck; you don’t counteroffer, period
  - <1,000 Employees: 40%
  - 1,000+ Employees: 38%

Base: 109 respondents at organizations with fewer than 1,000 employees and 169 with 1,000 or more employees
Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014
Figure 19

**Job Title**

Which of the following best describes your job title?

- **IT/IS staff**: 19%
- **IT director/manager**: 45%
- **Executive IT management (C-level/VP)**: 18%
- **Line-of-business management**: 8%
- **Non-IT executive management (C-level/VP)**: 4%
- **Consultant**: 4%
- **Other**: 4%

Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014
What is your organization’s primary industry?

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biotech/biomedical/pharmaceutical</td>
<td>2%</td>
</tr>
<tr>
<td>Consulting and business services</td>
<td>10%</td>
</tr>
<tr>
<td>Consumer goods</td>
<td>2%</td>
</tr>
<tr>
<td>Education</td>
<td>8%</td>
</tr>
<tr>
<td>Electronics</td>
<td>2%</td>
</tr>
<tr>
<td>Financial services</td>
<td>14%</td>
</tr>
<tr>
<td>Government</td>
<td>12%</td>
</tr>
<tr>
<td>Healthcare/medical</td>
<td>8%</td>
</tr>
<tr>
<td>Hospitality/travel</td>
<td>3%</td>
</tr>
<tr>
<td>IT vendors</td>
<td>6%</td>
</tr>
<tr>
<td>Logistics/transportation</td>
<td>3%</td>
</tr>
<tr>
<td>Manufacturing/industrial, noncomputer</td>
<td>10%</td>
</tr>
<tr>
<td>Media/entertainment</td>
<td>2%</td>
</tr>
<tr>
<td>Nonprofit</td>
<td>2%</td>
</tr>
<tr>
<td>Retail/e-commerce</td>
<td>2%</td>
</tr>
<tr>
<td>Telecommunications/ISPs</td>
<td>2%</td>
</tr>
<tr>
<td>Utilities</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>10%</td>
</tr>
</tbody>
</table>

Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014
Figure 21

Revenue
Which of the following dollar ranges includes the annual revenue of your entire organization?

- Don't know/decline to say: 8%
- Less than $6 million: 10%
- $6 million to $49.9 million: 14%
- $50 million to $99.9 million: 8%
- $1 billion to $4.9 billion: 14%
- $500 million to $999.9 million: 8%
- $100 million to $499.9 million: 10%
- $5 billion or more: 21%
- Government/nonprofit: 7%

Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014
Figure 22

Company Size
Approximately how many employees are in your organization?

Data: InformationWeek 2014 IT Skills Crunch Survey of 278 business technology professionals, August 2014
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