



# Attracting Developer Talent in 2018

## A Trend Report

Insight on what appeals to developer candidates in a job,  
based on a survey of 39,000+ developers

[www.hackerrank.com](http://www.hackerrank.com)





# Introduction

The hiring climate has never been more challenging, nor more competitive, for organizations looking to attract technical talent. A recent estimate from Code.org found that there will be more than one million computing jobs than qualified applicants by the year 2020. The same organization reports that as of 2016 there was already a talent shortage, as there are:

More than

**500,000**

open computing jobs

but

Less than

**43,000**

computer science majors who graduated into the workforce

*One of the best ways for technology companies to close this yawning gap between applicants and opportunities is to create a world-class experience for developers in early interaction to win over technical talent.*

Word spreads that your organization has a reputation of being a developer focused place to work, where people can build amazing things and solve important problems. The challenge is that many recruiting and hiring managers resort to more traditional, tried-and-true methods of attracting, identifying and interacting with candidates. It's critical for technical recruiters to take the time to fully understand who they're targeting, what developers value most and incorporate these learnings into how they pursue candidates in order to build a successful engineering talent brand.

To better understand the current mindsets of developers and help hiring organizations get on the right path, HackerRank reached out to our community of more than three million developers from around the world. Over 39,000 developers told us exactly what they look for in a job, what tools they prefer and what challenges they face. **We hope is that you can leverage these insights to improve the one element we've found to be most successful when attracting developer talent: your talent brand.**



# Table of Contents

## 01 A quick primer: talent brand vs. corporate brand?

## 02 What do developer candidates want?

- A. What developers want by age
- B. What developers want geographically
- C. Diving deeper into the #1 coveted quality

## 03 Creating a developer-first evaluation process

## 04 From the front lines

- Speaking the right language to discover proven skills
- Understanding the needs of your developer candidates
- Fostering the developers continuous learning mindset

## 05 Tying it all together and taking action

- A. Rethink the career page & job description
- B. Clarify what to expect with compelling content
- C. Highlight your people and growth opportunities

## 06 Conclusions

## 07 Methodology



# 01 A quick primer: Talent Brand vs. Corporate Brand

To fully understand how companies can help improve their talent brand, let's first take a look at the state of talent branding today. The first step is to understand the two different types of branding that companies create: corporate branding and talent branding.

Corporate Branding	Talent Branding
The organization's reputation to the public as a whole	The organization's reputation solely as an employer
Dependent on industry positioning	Dependent on workplace culture and the opinions of its employees
Messaging about employment is crafted internally and based on how the organization wants to be viewed, highlighting company's mission, perks, healthcare, etc.	Value of employment is very social and shaped by what current talent thinks, feels, and shares about the organization as a place to work, culture, and work-life balance

For our purposes, the question becomes how can companies ensure that their talent brand appeals to the developer and engineering talent they are trying to recruit? How can they control and continuously develop their talent brand image? With so many great companies out there to choose from, it's important for companies to identify what sets their organization apart and then build a talent brand around its unique features, values and attributes.



# 02 What Developer Candidates Really Want

If you look at any typical career page for technology job descriptions, hiring managers commonly highlight tech stack, mission statement, and perks to entice developers to apply. This is not what employers or recruiters should be focusing on.

Instead, the number one thing that developers want most, above all, is a **strong work-life balance, professional growth and learning** as well as **compensation**.



**Software Engineer - ANTLR/JAVA**

San Francisco, Bay area, CA      ID: jbpst233  
 Posted on : dd/mm/yy      Position: Full time

**Description:**  
 Looking for a talented software Developer with ANTLR and Java experience who wants to join one of the fastest growing companies.

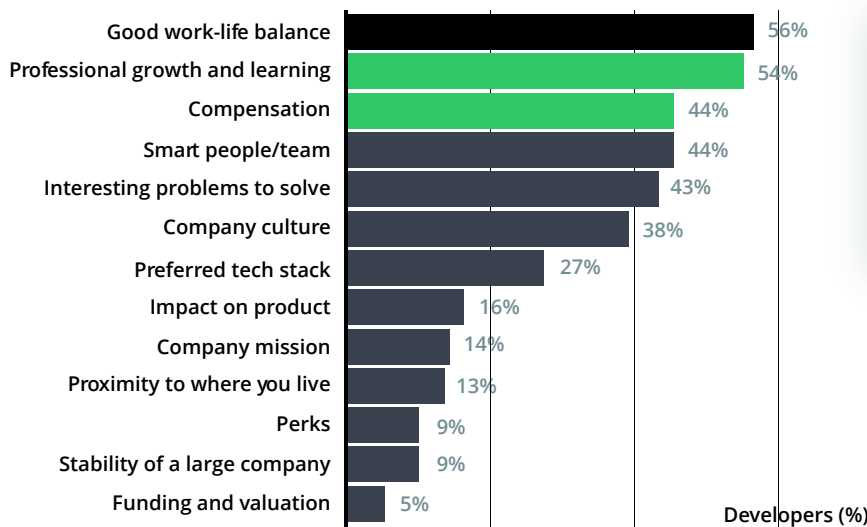
**Qualifications:**  
 - 2+ years of experience as a Software Engineer  
 - Strong ANTLR and Java experience  
 - Excellent communication skills.  
 - BS in Computer Science, Computer Engineering or anything related to this field.

**Compensation**  
 - Access to free company shuttle  
 - Free lunch and daily snacks  
 - Fun and cultural togetherness

Typical Job Post

## Developer: 3 Most Important Things you Look for in a Job Opportunity

Base: N= 14,739 developers (students excluded)



### Top 3 picks:

1. Good work-life balance
2. Professional growth/learning
3. Compensation/smart team



These findings clearly show that developers and engineers value quality of life attributes with their career pursuits and seek continued growth, learning and improvement in their careers. Their desire to collaborate with and learn from their smart colleagues and solve interesting problems speaks to their desire for a challenging, growth-oriented workplace.

One of the main reasons that talented developers look for new jobs is to find opportunities to continue to learn and engage with new technologies beyond their day-to-day work. A survey from Netguru supported this approach, as 85 percent of those polled said working on an interesting project was far more important than money. This same survey also found that developers seek a training budget, which allows them to attend developer conferences and further their skills.

By and large, it's all about finding that balance between passion, thirst for learning and ability to have flexibility as well.

### Developers top Priorities vs. Company Size

Base: N= 14,702 developers

Top Priorities in a job	Total Number of Employees			Total
	1-100	101-1,000	1,001 +	
Good work-life balance	48%	57%	58%	58%
Professional growth/learning	50%	55%	56%	56%
Compensation	35%	41%	50%	50%
Smart people/team	48%	44%	42%	42%
Interesting problems to solve	42%	42%	43%	43%
Company culture	39%	39%	37%	37%
Preferred tech stack	29%	27%	26%	26%
Impact with product	19%	14%	16%	16%
Company mission	18%	15%	12%	12%
Proximity to where you live	12%	14%	14%	14%
Perks	6%	9%	10%	10%
Stability from a large company	5%	8%	11%	11%
Funding and valuation	6%	4%	4%	4%

- Work-life balance is less important to developers in small companies
- Professional growth is more important to developers in large and mid-size companies

One nuance that's important to highlight is that developers at smaller companies said work-life balance is slightly less important compared to their colleagues at larger companies. This is understandable since life at a startup requires input from a time and energy perspective.



## A. What Developers Want by Age

### Developers top Priorities vs. Age

Base: N= 14,642 developers

Top 3 Job Priority	18 to 24	25 to 34	35 to 44	45 to 54	55+
Good work-life balance	53%	57%	60%	49%	37%
Professional growth/learning	61%	56%	43%	35%	32%
Compensation	34%	48%	49%	52%	35%
Smart people/team	46%	45%	38%	37%	48%
Interesting problems to solve	47%	42%	39%	42%	41%
Company culture	40%	39%	36%	34%	41%
Preferred tech stack	26%	28%	25%	22%	21%
Impact with product	19%	16%	12%	12%	11%
Company mission	18%	13%	11%	12%	13%
Proximity to where you live	9%	13%	19%	24%	26%
Perks	11%	9%	5%	4%	4%
Stability from a large company	9%	9%	10%	9%	5%
Funding and valuation	5%	5%	4%	3%	6%

- Work-life balance most important to 35-44 year old developers and least important to those 55+

- Professional growth most important to those 18-24

- Compensation ranks higher among 25-54 year old developers

Work-life balance is most important to developers 25 years and older, and — unsurprisingly — ranked slightly less important to developers between 18 and 24. This speaks volumes to the demanding nature of software development.

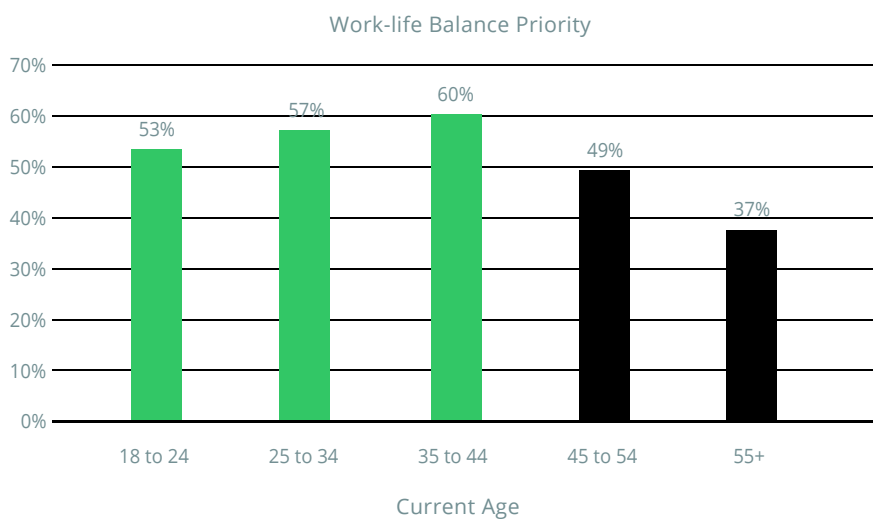
For instance, we found that...at any given time, developers want to learn an average of 4 new programming languages. And developers in the 18-24 age bracket want to learn 6! Furthermore, even though a high majority of developers have a degree, self-teaching is the norm. 74% of developers said they're at least partially self-taught...using Stack Overflow, YouTube and books as the most common ways to self-teach.

Developer Age	Avg Nbr of Languages plan to learn
18 to 24	6
25 to 34	4
35 to 44	3
45 to 54	3
55+	3



In some ways, we've discovered a slight contradiction here: Developers want work-life balance but they also have an insatiable thirst for learning. They're also forced to adapt to the constant change of technology. For developers, the number of new tools to learn can sometimes feel overwhelming. But the best fuel for learning is curiosity and genuine interest. This can help strike a better work-life balance.

#### Desire for work-life balance is higher for developers <45 years old



Desire for work-life balance is lower for developers over 45 years old. This is interesting, when you consider that the number of programming languages that developers want to learn goes down with age as well. This could very well have to do with more experience developers having less need to learn all the new technologies that are constantly changing. Meanwhile, younger developers have an urgency to keep up with the latest, while--general-ly--starting families and pursuing passions.


















## B. What Developers Want Geographically

### Top 5 job Criteria for Developers

Base: N= 9,849 developers in countries with 100+ respondents (students excluded)

	Rank #1	Rank #2	Rank #3	Rank #4	Rank #5
	Culture	Balance	Growth	Problems	Pay
	Balance	Growth	Culture	Team	Problems
	Pay	Balance	Growth	Team	Problems
	Problems	Balance	Growth	Team	Pay
	Balance	Team	Problems	Growth	Pay
	Growth	Balance	Problems	Team	Pay
	Balance	Growth	Team	Pay	Problems
	Balance	Growth	Pay	Team	Problems
	Team	Problems	Growth	Pay	Balance
	Team	Balance	Growth	Pay	Stack
	Growth	Team	Balance	Pay	Problems
	Growth	Problems	Team	Pay	Balance
	Growth	Balance	Pay	Problems	Culture
	Balance	Team	Growth	Culture	Problems
	Problems	Growth	Pay	Team	Balance
	Balance	Pay	Team	Growth	Culture
	Balance	Pay	Growth	Culture	Team

Geographically, the distinctions aren't too grave, with a few exceptions. The same top three criteria ranks in the top three across the board.

Canada is the only one of the 17 countries represented that ranks compensation as #1. Likewise, Australia uniquely ranks company culture as the #1 thing to look for in a job. You'll also notice that the Americas crave work-life balance more so than other regions, like Asia and Europe.



## C. Diving deeper into the #1 coveted quality

Since work-life balance is so important, and it could mean many things to many people, we did a follow up survey to 3,000 developers who chose work-life balance. We wanted to dig into how can employers really support you and improve your happiness level?

Here's what we found:

What are the best ways that employers could help support a healthy work-life balance for you?			
	Men	Women	Total
Allow flexible work schedules	89%	92%	89%
Support remote working	81%	79%	80%
Focus on outcomes, not hours worked	79%	77%	78%
Encourage employees to use their vacation time	54%	59%	55%
Offer generous vacation/PTO benefits	53%	62%	54%
Foster creativity (e.g 20% side projects)	42%	35%	41%
Discourage after-hours emailing	40%	43%	41%
Health initiatives	40%	41%	40%
Help employees to get everyday tasks done (e.g. free on-site laundry)	22%	23%	23%
Help with childcare costs	19%	26%	20%

### Women place higher value on:

- PTO benefits (62% vs 53% of men)
- Childcare subsidies (26% vs 19% of men)

### Men place higher value on:

- Fostering creativity (42% vs 35% of women)

### Top 3 picks:

1. Flexible work schedules
2. Remote working
3. Focus on outcomes

If you allow more flexible work schedules, support remote working and focus on outcomes as opposed to the amount of hours worked, you're bound to attract more developers. Men, however, are especially fond of more creativity, like ability to spend 20% of their working time on side projects. Women, on the other hand, especially value generous vacation and paid time off benefits.



## 03 Creating a Developer-First Evaluation Process

Now that we have a solid, statistically strong understanding of what developers want, it's time to refine the process that developers go through from the very first step: The application and skill evaluation process.

The traditional method, that's by far the most common today, is by looking at resumes.

7,804 hiring managers	Total
Resume screening	81%
Other problem solving, logic challenges	56%
Referrals	51%
Remote, live interviewing tool	27%
Personality test	25%
HackerRank coding challenges	19%
Outsourced human technical interview panel	7%



Even though a whopping 81% of hiring managers and employers said they use resumes to screen developers at the very first step, only about half of developers think this is a good way to vet their abilities. The reality is ... **developers are good at writing code, not resumes.**

When asked what hiring managers truly care about in developers, by and large the answers centered on proven skill. More specifically, previous work experience, number of years of experience and personal projects were the most valuable proxies.



## 04 From the Front Lines

### Speaking the right language to discover proven skills



Mina Feuerhaken  
Recruiting Manager  
HackerRank

Mina Feuerhaken runs all of recruiting at HackerRank, and previously scaled engineering teams at Looker. She explains, “It’s important for recruiters to create an ongoing cadence of collaboration with hiring managers (Engineering Vice Presidents or Directors of Engineering). This can create clarity about desired technical hires and the most effective company messaging to resonate with possible developers and engineers on the web and through social channels.

These regular check-ins offer an opportunity for recruiters to stay current with their organization’s hiring needs and gain updates on any changes in roles for new candidates or priority areas for the company.

“Recruiters need to hold hiring managers accountable and advise them as needed. In many respects, advising is what recruiters do best,” she notes.



## Understanding the needs of your developer candidates



Soham Mehta  
**Founder**  
Interview Kickstart

Soham Mehta, the founder of Interview Kickstart, which helps coach developers on interview preparation and job search, spent the bulk of his earlier career as a software engineer at startups and established companies such as eBay and Box.

Mehta recalls that throughout his career as a developer, “The tech stack never really mattered, at any of the companies I worked for. The people you work with is really what’s important. The companies that I chose to join are where I could gel the most with the team. When you’re surrounded by good people, you definitely learn, grow and develop your skills.” Mehta’s observations about the importance of team coincide with what developers told us in the survey, ranking working with “smart people/team” in the top three of desired attributes in their next job.

While at Box, he eventually became director of engineering, interviewing and hiring developers. In revisiting this role, he recalls that “I made it a point to inspire candidates, showing them the best that we had to offer. It was the little things that mattered, like how we recorded candidate interactions, how we spoke to them, the quality of our follow-up communications and how we packaged an offer.”





## Fostering a continuous learning mindset



Naarah Hastings  
Talent Acquisition Partner  
CEO & Founder  
6H Talent

Naarah Hastings, the founder of 6h Talent, specializes in recruiting advice for startups.

She's noticed over the course of her recruiting career that candidates at start-ups tend to value what they are building and the tools they are using as a top priority. She notes that half of the candidates she places with start-ups are mid-level developers (3-5 years experience), while the bulk of the others are senior developers. Very few new hires at start-ups are fresh grads.

She notes that learning is indeed important to candidates, as almost all of the engineers she works with ask about training. "They don't want to be siloed in a specific role and are willing to migrate from full stack to front end in an effort to move around, stay on the cutting edge and not be left behind." She points out that 99 percent of possible recruits stay busy with their personal side projects through GitHub and Stack Overflow. "Some even run side businesses, all of which speaks to their desire to stay busy, keep learning and shape their candidacy profile for hiring organizations," she adds.





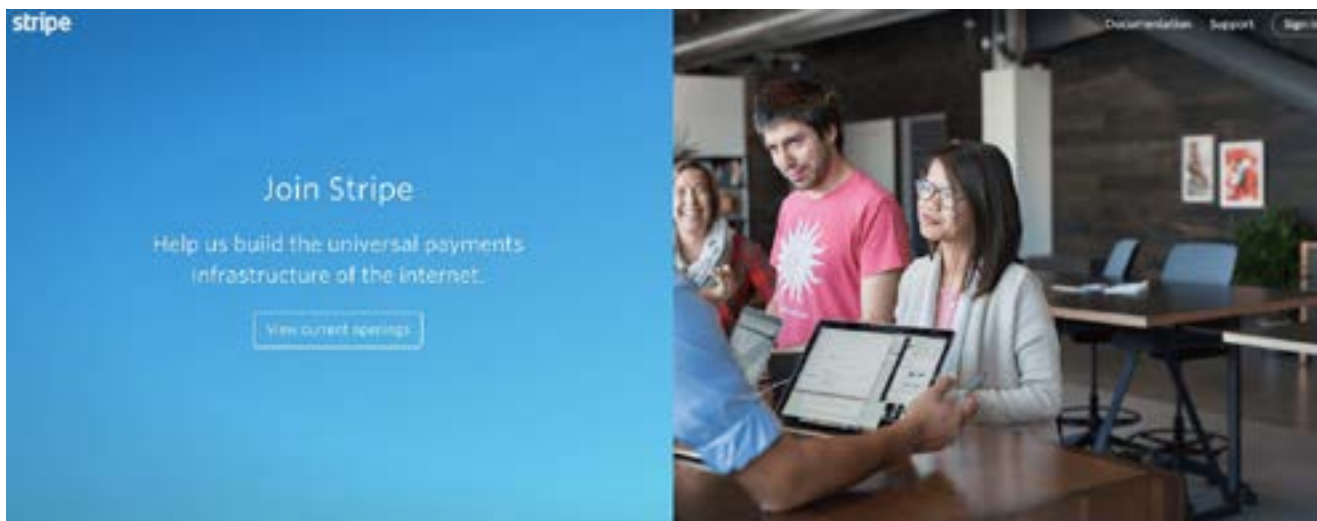
## 05 Tying it All Together and Taking Action

So, how can we take the HackerRank survey findings, the sentiments generated by recruiters and the collective input from developers and engineers themselves to map out an actionable pathway for technology companies to create a truly distinctive talent brand? Here are some strategies to help organizations develop and refine their talent brand.

### A. Rethink the Career Page & Job Description

At many companies, there is plenty of room for improving job descriptions for tech talent and the website interface they encounter. The old way of advertising a job is to simply write a blurb about the company, what the role entails and what the job requirements are. This is standard across all jobs today.

But for developers, a better way to highlight key values is by de-emphasizing tech stack, company mission and perks. And, instead, focus on what the day-to-day atmosphere is like, what career paths might look like and the opportunity to learn. Developers should have a strong understanding of the entire hiring process, and what it's like if they were to join. They should be able to see themselves working there.





Stripe, for instance, is an amazing role model for a prime developer brand. Its career page elements are crisp, clear and straight to the point with an opportunity to explore their blog and dig into their product. There are simply two sections: What we do, and how we work. The latter paints a picture into the day-to-day philosophies of stripe and how much flexibility a developer has who works here.

#### *How we work*

*We want to build a work environment where people are happy, productive, and interact well.*

*Personal interaction in particular is something we emphasize a lot. We work hard to find people who make others want to be around them. We know we're doing a good job of hiring so long as we see people continuing to join simply to work with those who are already here.*

*We're quite transparent internally. This helps everyone make better local decisions and avoid split-brain behavior. (Plus, we hire curious people, so they generally want to know the details of what's going on.)*

*We are committed to building an actively inclusive work environment that makes Stripe an excellent home for everyone—regardless of gender, sexual orientation, ethnicity, race, education, age, or other personal characteristics. We work on broadening our diversity because we think it's simply the right thing to do. We want to include people, be a spectacular home for them to be themselves, and enable them to do great work.*

You'll notice that nowhere in the career page or job description is there any mention of the lowest ranked values, like funding, perks or mission. Instead, Stripe focuses on its unique core values that's embedded in their technology teams.

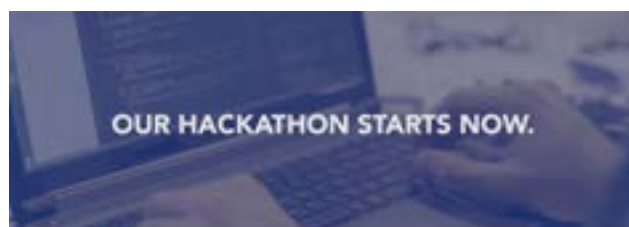
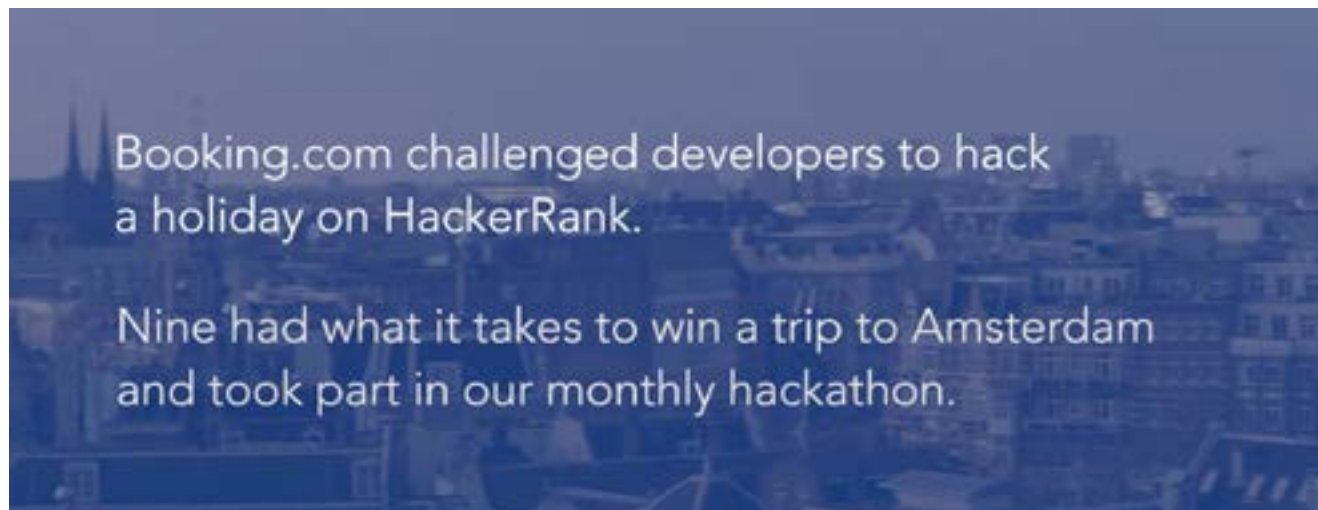




## B. Clarify what to expect with compelling content

Building on the example above, developers will appreciate the care in highlighting what they can expect if they work at your company.

Stripe, again, put a lot of thought and care into how they work. In fact, each technical role links to a [PDF](#) that describes exactly how the onsite interview process will go. This helps developers feel prepared and empowered to be their best selves. Likewise, they have a [Culture Guide](#) that highlights the core values and philosophies.



To produce these assets, it's critical to work closely with your engineering team. Interview your own developers to understand why they love their job, how they've been able to grow and learn. This investment in compelling content is the key to driving your talent brand, and spreading the word about the unique aspects of building software at your company. Similarly, Booking.com got very creative with their hiring process and produced a ["Hack the Holiday"](#) video in which they invited top hackathon performers to visit their Amsterdam office.



## C. Highlight your people and growth opportunities



BlackRock Engineering has an effective blog aimed at developers <http://rockthecode.io> that touches on topics that are engaging, informative and insightful about the experiences of developers and engineers at the company. Blog posts include How Blackhat Influenced my Interest in Red Teaming, Why We're Joining Forces with Code.org and How BlackRock Got Cal Hacked!

The outlet or format will depend on what's most effective for your company. The important piece, however, is that you're telling stories of people who are learning, growing and enjoying a strong balance between passion and work.



## 06 Conclusion

In today's climate where developer and engineering job openings far outweigh the number of available candidates, it is more imperative than ever for hiring organizations to create a world-class experience for tech talent, as part of a broader initiative to build a successful engineering talent brand. HackerRank's survey of more than 39,000 developers provides invaluable insights into what they desire in a job, their preferred tools and their coding experiences, which can help companies align more closely with developer wants and needs.

Among the many survey results, the most compelling finding is the degree to which candidates seek a strong work-life balance, followed by professional growth and learning, and then compensation. It boils down to threading the needle between passion, thirst for learning and desired flexibility. Knowing what developers want most in their next position, what are the best strategies to evaluate candidates? For hiring organizations, it's maintaining open lines of communication between recruiters and hiring managers, understanding the specific needs of developer candidates at their particular career stage, and staying closely attuned to a desire for learning among recruits.



The survey findings provide some key takeaways for companies for their web interfaces: rethink the career page and job description, create compelling web content, and bring your people and growth opportunities to life. This guidance may not provide all the answers for hiring organizations pressed to lure top talent, but it should offer enough direction to get them on the path to better, more strategic hiring days ahead.



## 07 Methodology

HackerRank conducted a study of developers to identify trends in developer education, skills and hiring practices. A total of 39,451 professional and student developers completed the 10-minute online survey from October 16 to November 1, 2017.

The survey was hosted by SurveyMonkey and HackerRank recruited respondents via email from their community of 3.2 million members and through social media sites.

Tests of significant differences were conducted at the .01 level (99% probability that the difference is real, not by chance). Percentages may not always add to 100% due to rounding.

