



The Developer Ecosystem

TECH HIRING EDITION / UK & IRELAND Q1

About The Developer Hiring Report

Throughout 2017, Stack Overflow will release four new reports that take a close look at the developer ecosystem in the UK and Ireland. The reports investigate the number of developers working in the region, the most common technologies used in key tech hubs and the programming languages that are most in-demand from employers.

Every report will explore a distinct theme within the developer community. In this first edition, we focus on Tech Hiring - how software engineers find jobs, what matters to them when considering a new position, and the tips they want to give to recruiters who hire tech talent.

For more insights into developers in the UK and Ireland, download the Developer Hiring Landscape Report 2017.

Introduction

Developers are writing the script for the future. With the demand for technical talent far exceeding supply, every company is searching for its next developer. For this reason, tech recruiters face some of the biggest challenges in the recruitment industry.

What If You Could Spend A Day In A Developer's Shoes?

You could learn what attracts them to new job opportunities, what makes them respond to a recruiting email, and how their working style is different than other co-workers. While we can't wave a magic wand and make that happen for you, we can provide you with data to help you understand and recruit developers more effectively.



There are 970,185 developers in the UK & Ireland



Developers in UK and Ireland prioritise commuting time when considering a new position



31.4% of developers are categorically not interested in new job opportunities



98.6% of professional developers are currently employed (either by a company or as a freelancer)

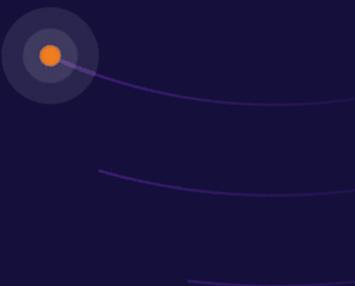
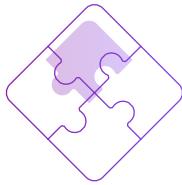


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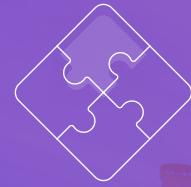


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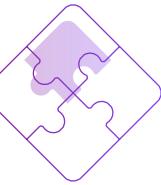




CHAPTER 1

The Developer Ecosystem

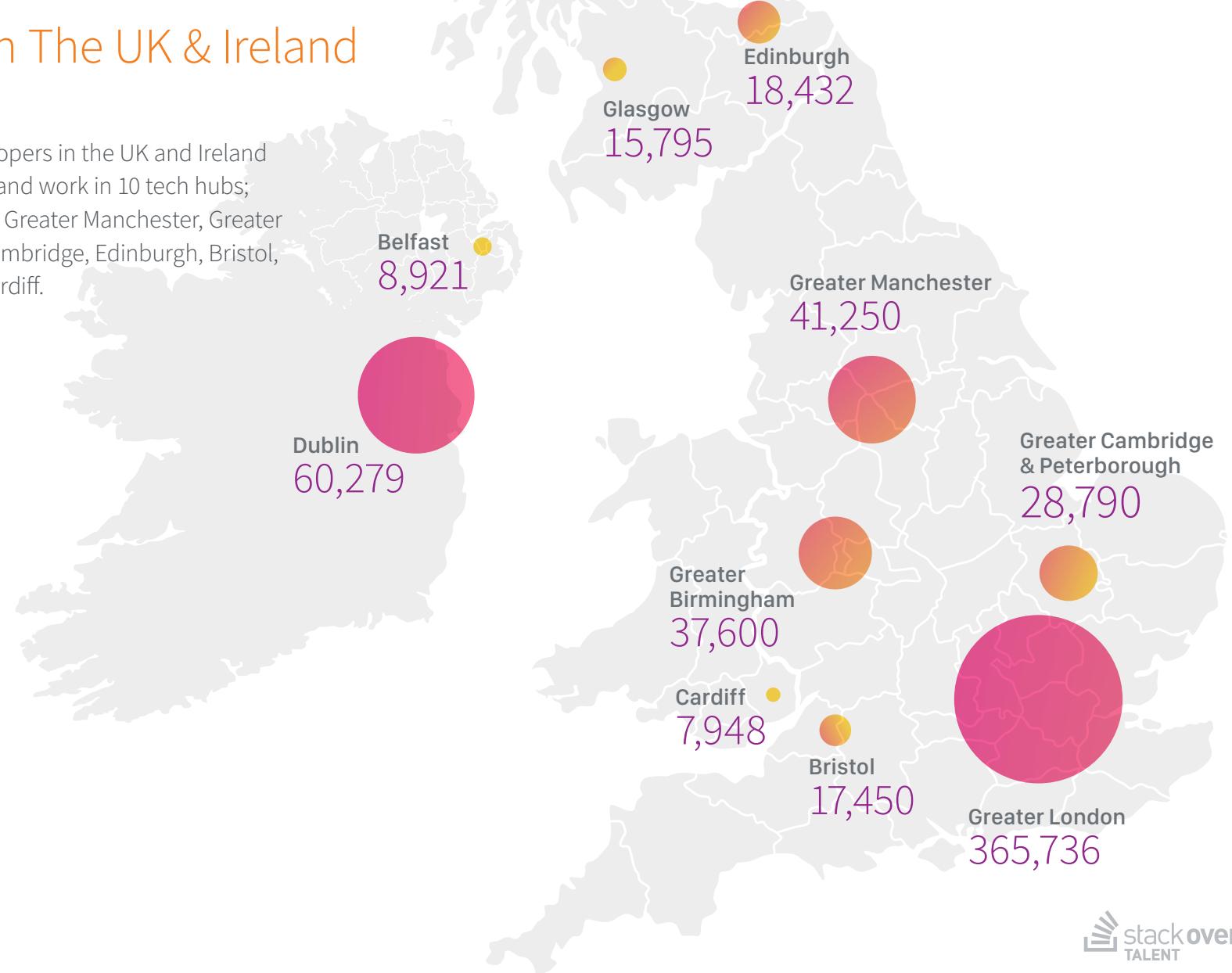


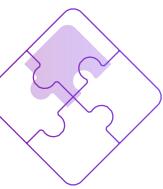


Tech Hubs In The UK & Ireland

H1 2017

There are 970,185 developers in the UK and Ireland region, who mainly live and work in 10 tech hubs; Greater London, Dublin, Greater Manchester, Greater Birmingham, Greater Cambridge, Edinburgh, Bristol, Glasgow, Belfast and Cardiff.





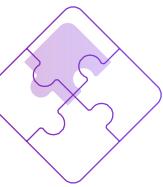
Developer Population Vs. Total Labour Population

The developer population of Greater London is by far the largest in the region, and accounts for 38% of the total developer community amongst the UK and Ireland. However, Dublin is a city where software engineers make up the largest part of the total labour force. Almost one in ten workers in Dublin are likely to be developers! By comparison, the Greater Manchester area has the lowest density of programmers in the working community.

Dublin	Greater London	Edinburgh	Bristol	Glasgow
60,279	365,736	18,432	17,450	15,795
670,921 [9%]	4,771,000 [7.7%]	259,800 [7.1%]	248,200 [7%]	294,000 [5.4%]
Belfast	Cardiff	Greater Birmingham	Greater Cambridge	Greater Manchester
8,921	7,948	37,600	28,790	41,250
132,000 [6.8%]	176,800 [4.5%]	942,200 [4%]	750,300 [3.8%]	1,356,500 [3%]

● Total Developer Population ● Total Labour Force Population ● Developer Population As Percentage Of Labour Force





The Most Commonly Used Technologies

H1 2017

The most commonly used technologies in the UK and Ireland are Python, .NET and Java. There are some regional differences: for example, Bristol and the Greater Cambridge areas are also home to large communities of developers proficient in Node.js. In Birmingham and the Greater Manchester area, there is a large population of PHP specialists.

Greater London	Greater Manchester	Greater Birmingham & Solihull	Bristol	Edinburgh
Python 51,921	Python 5,656	Python 5,441	Python 2,649	Python 3,588
.NET 47,378	.NET 5,742	.NET 5,175	.NET 1,862	Java 1,903
Java 36,799	PHP 4,272	PHP 3,620	Node.js 1,735	.NET 1,746
Glasgow	Greater Cambridge & Peterborough	Dublin	Belfast	Cardiff
Python 2,432	Python 6,655	Java 10,448	.NET 1,740	Python 1,462
.NET 1,752	.NET 3,212	Python 7,934	Java 995	.NET 839
Java 1,702	Node.js 2,086	Ruby 5,888	Python 942	Java 836

● Developers

THE TOP TECHNOLOGIES



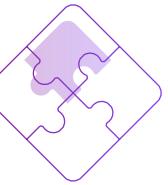
Python
142,842



.NET
119,968



Java
93,861



In-Demand Technologies

Q1 2017

Demand For Programming Skills

Unsurprisingly, some of the most commonly used languages by developers (Java and Python) closely match those which are most wanted by employers in the region.

THE TECHNOLOGIES WITH THE GREATEST DEMAND FROM EMPLOYERS ARE:



JavaScript



Java



C#



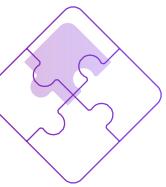
Python



Amazon
Web Services

Technologies with highest demand from employers measured by jobs created between December 2016 and February 2017 in the UK and Ireland





Top Benefits Offered By Tech Employers

Q1 2017

In the UK and Ireland, the most commonly offered benefit amongst tech employers is flexible working hours. Also in the top five benefits, are competitive salaries, childcare vouchers, cycle to work and pension schemes.

There are some differences from the [most commonly offered benefits globally](#). In the UK and Ireland, healthcare is notably not in the top five benefits.

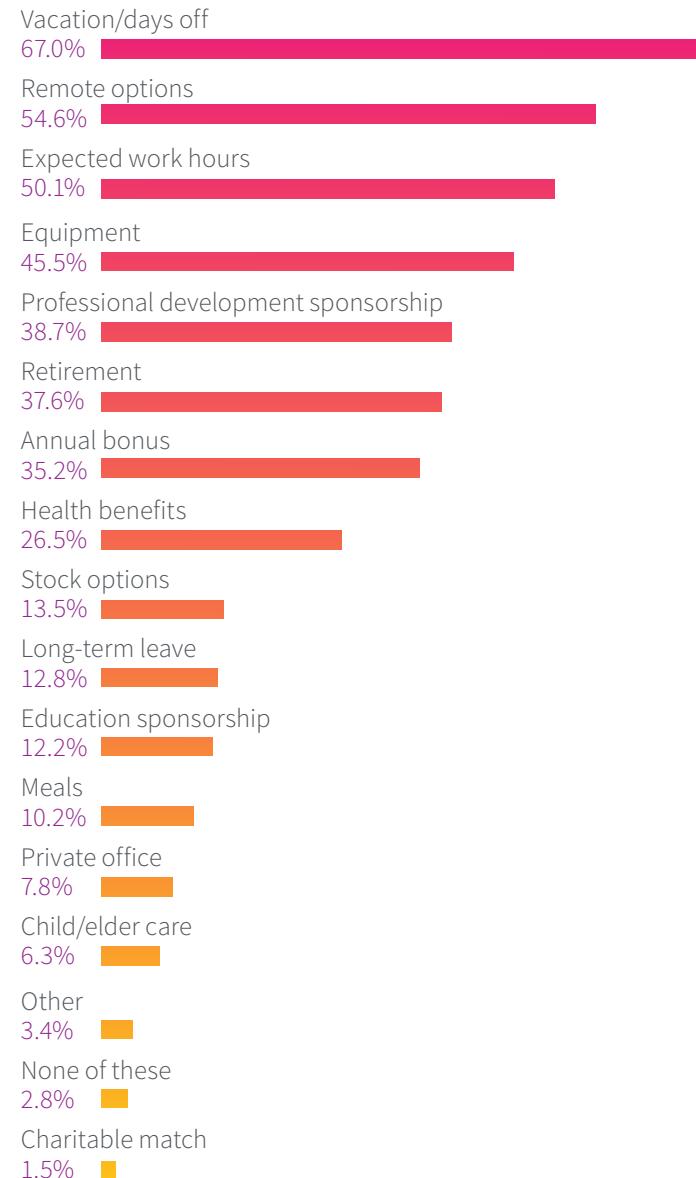
Top 5 Benefits Offered In UK and Ireland Region

- Flexible working hours
- Competitive salaries
- Childcare vouchers
- Cycle to work scheme
- Pension Scheme

For employers looking to hire tech talent, it's worth considering what programmers themselves prioritise. In Part 2 of this report, you can see the benefits that developers in each region of the UK and Ireland seek when considering new job opportunities.

Top benefits offered measured by keywords on job listings. What developers value in compensation / benefits sourced from Stack Overflow's annual developer survey 2017.

What Developers Value in Compensation/Benefits





CHAPTER 2

Focus: Tech Hiring



Hiring technical talent is hard, and Stack Overflow is trying to help employers better understand what matters to developer job-seekers.

In this section of the Tech Hiring Report, we explore developers experiences and preferences when it comes to exploring new job opportunities, and speak to companies with some of the most successful ‘tech’ employer brands in the region, to discover how they help developers evaluate job opportunities at their companies.

- Passive and Active Job Seekers
- Career Satisfaction
- Job Discovery
- What Motivates Developers to Update Their CVs

- Job Evaluation Criteria
- Importance of Benefits
- Tips for Tech Hiring



Passive & Active Job Seekers

In the UK & Ireland, the majority of developers are not currently looking for a job - in fact, fewer than one in ten people are actively looking! This situation, combined with the high demand for technical talent, means that employers who focus their recruitment efforts solely on the active job seeker population are going to struggle to meet their hiring goals.

Job Search Status





However, even though just 9.5% of developers are actively looking for a new job, it doesn't mean that many wouldn't consider a new role. In fact, 59% of developers in the region told Stack Overflow that although they aren't actively looking, they are open to hearing about new jobs. These people are known as 'passive' job seekers, and the fact that almost two-thirds of the developer population fall into this category, should be good news to employers who are utilising techniques to attract this section of the job seeker audience.

Industry Patterns

There are some trends emerging across industries - developers working in Government or Non-Profit industries, Mining & Agriculture or Oil & Gas and Manufacturing are more likely to be open to new job opportunities than people working in Software industries.



77% of developers in Government & Non-Profits

are actively looking, or open to new opportunities



75% of developers in Mining & Agriculture or Oil & Gas

are actively looking, or open to new opportunities



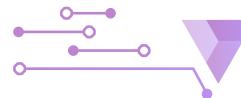
72% of developers in Manufacturing

are actively looking, or open to new opportunities



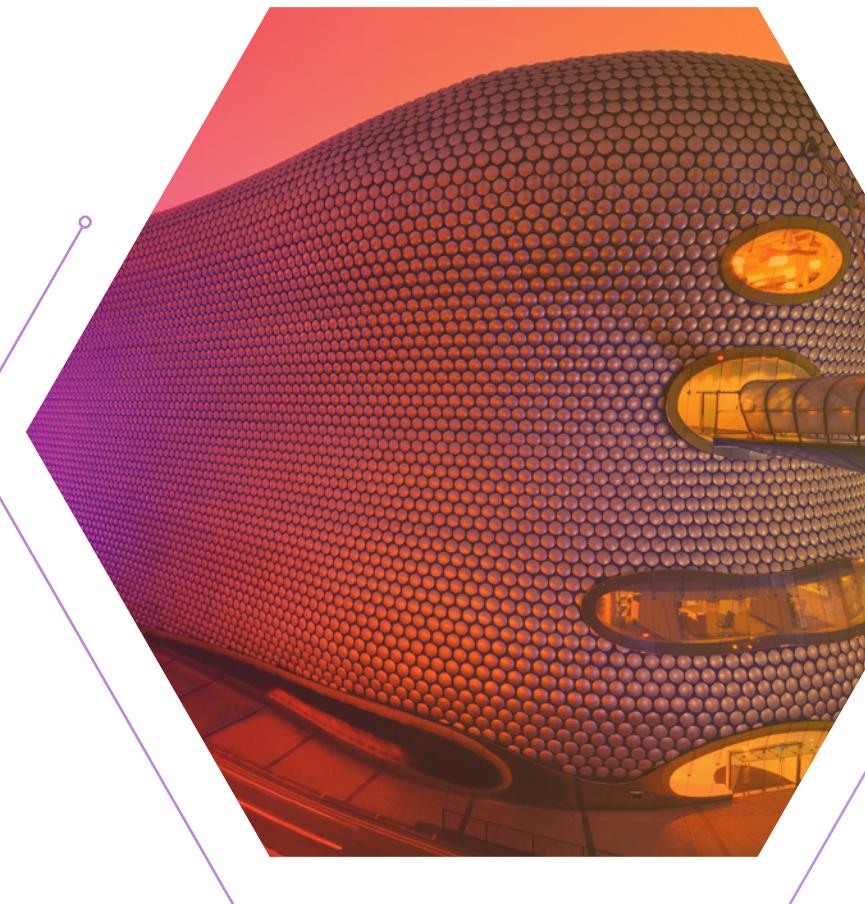
62.9% of developers in the Software industry

are actively looking, or open to new opportunities



TIP

For ideas on targeting passive job seekers, download [The Passive Tech Candidate Recruiting Playbook](#).





Career Satisfaction

When Stack Overflow asked developers how satisfied they were with their career and their current job, some patterns emerged.

In general, developers are more satisfied with their career overall than with their current job. And, we can observe trends across developers in different industries. Developers in the Consulting and Software industries are more likely to be satisfied with their career than developers in Government and Non-Profits: in fact, 15.9% of respondents from the Consulting industry ranked their career satisfaction at 10/10 - in contrast to just 4.6% of developers in the Government and Non-Profit industries.

Which Industries Offer 10/10 Career Satisfaction

-  **15.9% of developers in the Consulting industry**
ranked their career satisfaction at 10/10

-  **11.6% of developers in the Finance industry**
ranked their career satisfaction at 10/10

-  **4.6% of developers in the Government & Non-Profit industries**
ranked their career satisfaction at 10/10

-  **2.4% of developers in the Mining, Agriculture, Oil & Gas industry**
ranked their career satisfaction at 10/10

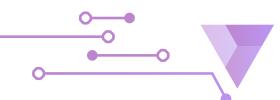




Job Discovery

To get to the bottom of how developers discover new job opportunities, we asked developers to think back to when they first applied to work at their current employer.

31% of programmers in the UK and Ireland found their job through an external recruiter or headhunter. If you include university recruiting events and internal recruiters, this number rises to 49%. In contrast, just 13.4% found their job through a general-purpose job board like LinkedIn or Monster.



TIP

Maximise your recruitment team's success when hiring developers. Download the free guide to [Building Better Relationships With Developer Candidates](#).

How Do Developers Learn About Job Opportunities?

An external recruiter or headhunter

30.9%



A friend, family member, or former colleague told me

18.0%



A general-purpose job board

13.4%



I was contacted directly by someone at the company (e.g. internal recruiter)

11.5%



Some other way

8.8%



I visited the company's website and found a job listing there

6.7%



A career fair or on-campus recruiting event

6.1%



Other

4.6%





Last Time Developers Took A New Job

Since developers are more in-demand than ever, they have the freedom to switch jobs more frequently than other professionals. In fact, whilst most people in the wider workforce [change jobs every five years](#), 73.8% of developers in the UK and Ireland took a new job within the past four years.

Last New Job



● Among developers who are employed full-time





What Motivates Developers To Update Their CVs

In last year's survey, we asked developers about the annoying parts of searching for a job. Maintaining an up-to-date CV was at the top of their list. This year, we asked developers to think back to last time they updated their CV and tell us why they made the update.

47% of developers updated their CV/resume because of something related to a potential job opportunity, while 29% said, "I was just giving it a regular update."

When Developers Update CVs/Resumes



Data sourced from the Stack Overflow Annual User Survey 2017.





Job Evaluation Criteria

When assessing potential jobs, developers (specifically those who are either actively looking or passively receptive to job offers) look for a few unique aspects. At the top of the list are commuting time, opportunities for professional development and the languages and technologies they'd use.

Top 3 Job Evaluation Criteria

- The amount of time I'd spend commuting
- Opportunities for professional development
- The languages, frameworks and other technologies I'd be working with



Employer Snapshot: How We Hire



Anna Roe

Recruitment Lead -- Engineering Hiring at TransferWise

By setting realistic expectations about the job, we ensure that we're offering a positive candidate AND employee experience for developers.

At TransferWise, we work with an exciting tech stack, and we know that this helps attract good developers. But like any business, we have our challenges -- and we're honest about them!

We started from a monolith code base to build fast and iterate. But as our business has seen meteoric growth over the last few years, it has become harder to scale - so now we are breaking into services. Instead of hiding this, we talk openly about this in our job ads and the interview process.





The Importance Of Salary And Working Environment

Unsurprisingly, developers told us that the compensation and benefits offered by an employer are one of the most important criteria to consider when evaluating a new opportunity. It is for this reason, that many of the world's most attractive 'tech' employer brands offer high levels of transparency around salary.

Also important to developers, were the office environment they would be working in and understanding how projects are managed at the company. What mattered least to developers in the UK and Ireland? Characteristics such as the reputations of the company's senior leaders and how widely used the products or services are.



Employer Snapshot: How We Hire

ThoughtWorks®

Charlotte Bridgeman

Head of Recruitment, ThoughtWorks

We have found that an open dialogue around compensation supports a positive candidate experience

At ThoughtWorks, we strive for transparency when it comes to technical recruitment. An open dialogue around compensation supports a positive candidate experience, and ensures alignment across skills and role. For example, we show salary ranges on our job descriptions - we know this is an important consideration for developers, and we've found that being upfront about compensation and benefits results in a more efficient recruitment process.



TIP

Employers who advertise jobs on Stack Overflow that show a salary range experience a [75% higher CTR](#) (click-through-rate) than those who don't.

Data sourced from the Stack Overflow Annual User Survey 2017.





Importance Of Benefits

We asked developers what they value in their compensation/benefits packages aside from their salary. In the UK and Ireland, the most important benefits were vacation days, the option to work remotely, their expected work hours, the equipment they would be using, and professional development sponsorship.

Not sure what developers in your location care about most? Just ask them!



What Matters To Me



Diana Lee

Community member and Front-End Lead Curriculum Instructor at Code First: Girls

*What matters to me, when I'm looking for a new developer job?
Firstly, I look for a nurturing culture.*

In practice, this means a transparent decision-making structure built on compassion and integrity - one which focuses on solving problems together. This also relates to the working environment, and ability to balance flexible working amongst the team.

I also look for a strong internal team structure (for example: using VCS/git & Trello/Asana efficiently so it's easier to collaborate and do code reviews). It's really important to me that employers focus on encouraging people to communicate well about what they're working on - not just write code.

Finally, I look for companies that offer a holistic and socially responsible company vision.



Benefits Prioritised By Developers In Different Regions



Northern Ireland

Vacation & days off - **65.90%**
Remote working options - **61.40%**
Expected work hours - **50.00%**



Scotland

Vacation & days off - **68.60%**
Expected work hours - **52.50%**
Remote option - **49.00%**



Northern England

Vacation & days off - **67.70%**
Remote working options - **52.70%**
Equipment - **51.10%**



Midlands

Vacation & days off - **64.00%**
Remote working options - **55.30%**
Expected work hours - **53.00%**



Wales

Vacation & days off - **72.70%**
Remote working options - **56.40%**
Expected work hours - **47.30%**



Greater London

Vacation & days off - **67.10%**
Remote working options - **53.20%**
Expected work hours - **50.50%**



Southern England

Vacation & days off - **67.80%**
Remote working options - **57.50%**
Expected work hours - **50.80%**



Republic of Ireland

Vacation & days off - **64.60%**
Healthcare - **59.30%**
Remote working options - **51.80%**



Tips For Tech Hiring

Although stereotypes sometimes portray developers as having poor communication skills, developers in the UK and Ireland told us that it is the most important skill that employers should screen for, when hiring new colleagues.

What other criteria did programmers tell us they think should be prioritised when hiring a developer? A track record of getting things done, and a knowledge of algorithms and data structures. To the tech community, it's less about a candidate's career path, and more about the ability to deliver within the team. For example, you can see here, that 'previous job title' is the least important point on the list.



TIP

The opportunity to work remotely is a highly-sought benefit. Learn how to hire remote developers in our free guide [Why You Should Hire Remote Developers](#).

Data sourced from the Stack Overflow Annual User Survey 2017.

What Do Developers Think Employers Should Prioritise?

Communication skills

3.2171

Track record of getting things done

3.2116

Knowledge of algorithms and data structures

2.5719

Experience with specific tools

(libraries, frameworks, etc.) used by the employer

2.5384

Educational credentials (e.g. schools attended, specific field of study, grades earned)

1.7511

Previous companies worked at

1.7326

Experience with specific project management tools & techniques

1.6940

Previous job titles held

1.6466

Contributions to open source projects

1.6123

- Responses on a 0-4 scale, where 0 indicates 'Not at all important' and 4 indicates 'Very important'



Employer Snapshot: How We Hire



Natasha McArthur

Head of Talent Acquisition & Engagement at Ovo Energy

At OVO, we seek out developers who are collaborative, innovative and passionate about problem-solving. We recruit our teams so they can shake things up.

Our new recruits know we trust them to take us forward – they have all the autonomy, responsibility and opportunity they need. To do this, it's important that we're open with everyone we hire about our culture here - so we talk about this in our job listings, and throughout the interview process, so when they arrive they know they've made the right decision to join us.



What Matters To Me



Emma Deacon

Full Stack JavaScript Developer, and community member of Founders & Coders and Code First: Girls

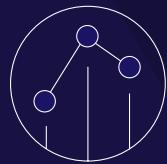
When promoting a job, it is crucial that you emphasise the environment of the workplace. As a female developer, it can be daunting to apply for jobs in companies that do not prioritise making the developer community as inclusive as possible. I would suggest that companies be as open minded as possible, and acknowledge that regardless of background, it is important for the office to help new hires, no matter where they were taught how to program.





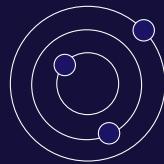
Hiring Developers is Hard. We Make it Easier.

With Stack Overflow Talent, you can:



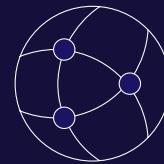
UNDERSTAND

Learn all about developers and the industry they work in.



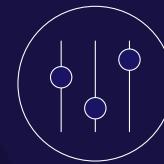
BUILD

Nail your employer branding and messaging to resonate with developers.



SOURCE

Find technical talent with a combination of our tools.



MANAGE

Get help managing your hiring process.

Talk to an Expert

