

## 2020 DEVELOPER SURVEY Executive Summary

As we head into the next decade, software continues to “eat the world” and revolutionize dozens of industries. The people who make this software continue to be some of the most hard-to-recruit and highly-coveted talent out there. Keeping them happy, engaged, and productive is a real challenge for many companies. We believe one of the best ways to do this is to ensure they are constantly learning and growing. Software developers are especially hungry for growth and providing them the right training and resources can be the difference between keeping them vs. losing them.

To help companies design training that developers will love, we combined several developer survey reports (including our own) into this summarized survey report. The DevelopIntelligence Developer Learning Survey Report is

the result of surveying 1,000+ professional software developers about what, how, and why they want to learn and receive training. We also combined reports from StackOverflow, HackerRank, and Developer Economics, who have surveyed developers about everything from demographics, work styles, and which technologies they like, dislike, currently use, or would like to use.

This report condenses and distills down these reports into actionable insights that Chief Learning Officers, L&D program managers, Engineering Managers, and many others can use to ensure their training programs are right for their software development talent.

### Featuring Data From Additional Sources Like:



## Developers are constant learners and prioritize learning and growth when choosing an employer

Software development tends to attract a very specific type of personality: driven, insatiably curious, resourceful, and pragmatic. Developers are constantly learning and self-teaching. They habitually pick up new skills by reading, watching videos, skimming forums and perusing docs. They do this to satisfy their curiosity, stay up-to-date and tackle specific project requirements. Our Developer Learning Survey Report found that 55% of surveyed software developers say they seek out training to meet current or upcoming needs or to advance their careers.

## WHY DO DEVS TAKE TRAINING?

Curiosity and skill improvement are not the only motivation

34%

### Completeness

Learn tips, tricks, best practices, etc. to deepen my overall knowledge and abilities.

34%

### Curiosity

Staying up on the latest and greatest technologies for my career.

24%

### Current or Future Need

Learn how to use a technology for an upcoming project.

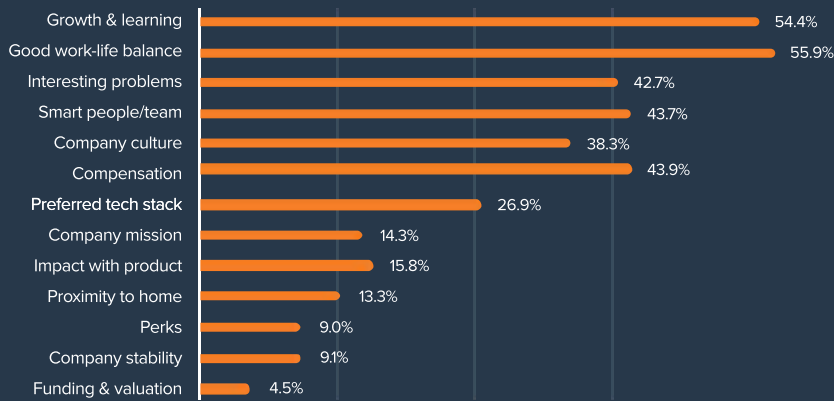
6%

### Specific Need

Learn how to fix something I am struggling with on my project.

This desire to be constantly learning and growing affects how developers choose employers and jobs. The [HackerRank's Student Developer Report](#) found that the opportunity to grow and learn is the number one quality most university students look for in a job.

### Professionals



Source: [HackerRank's Student Developer Report 2018](#)

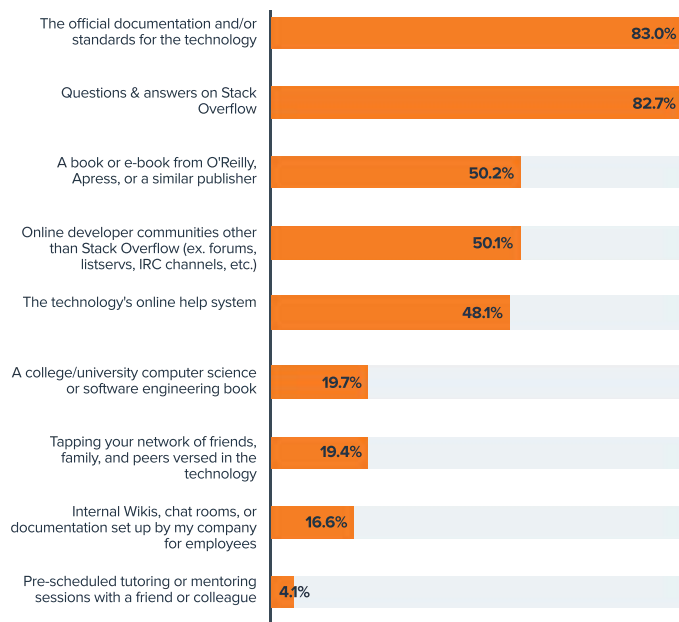
This data suggests that most developers prioritize learning on the job. Younger people place an even higher premium on learning. Companies competing for young talent should use learning/growth opportunities as a key marketing asset.

## Developers use docs, forums, books, MOOCs and StackOverflow to self-teach

Developers like to learn by reading and watching videos. Stack Overflow data revealed that most developers teach themselves by reading documentation, Stack Overflow, books, or forums.

### Ways Developers Learn on Their Own

#### All Respondents



Source: [StackOverflow 2018 Developer Survey Results](#)

48% of developers have taken some sort of online video course or participated in a MOOC. MOOCs from Coursera, Udacity, or Stanford offer friendly video courses taught by top experts, and

they're supplemented by forums, group challenges, exercises, and other social features.

### Our Take:

Over our 16 years of delivering training to engineers, we've seen how some teams embrace traditional multi-day instructor-led classroom (ILT) experiences. Other teams, no matter how awesome the content, context, or instructor, will reject the experience in favor of self-paced learning. And still, others will want a mix of options. Every engineering team is different and has different learning requirements.

As part of our context-first approach to learning, we'll work with you to design and deliver learning programs that achieve your business objectives and the learning needs of your teams.

## Experienced Developers value ILT more than newer devs

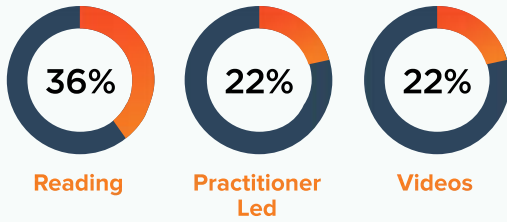
Formal learning courses are quite popular. According to Stack Overflow, some **35% of respondents** said they received **on-the-job training** similar to an **expert-led DevelopIntelligence course**.

Our combined report found there is an interesting similarity between how both less experienced and more experienced developers both value practitioner-led training. Both experienced and less experienced developers tend to prefer reading and practitioner-led training when they consider their most desired training formats.

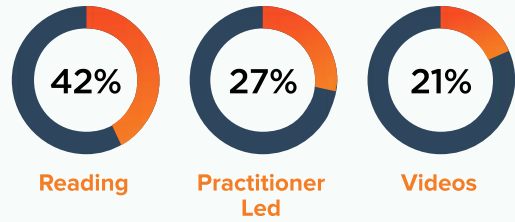
## MOST DESIRED FORMS OF TRAINING

\*Data shows multiple other training methods, but not enough core combined trends to include here.

### Senior Developers (5+ years)



### Junior Developers



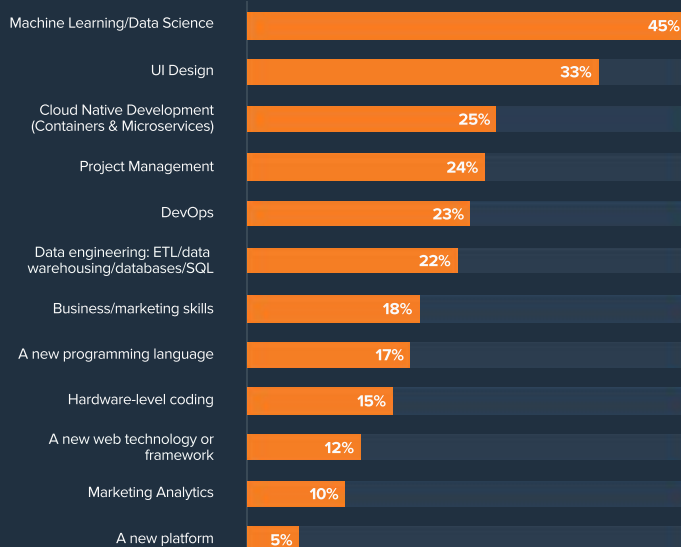
## WHICH TECHNOLOGIES DO DEVELOPERS WANT TO LEARN NEXT?

### Many developers want to learn more about Machine Learning and Data Science

Data science and machine learning are changing the world. Developers are aware these spaces will continue to grow and many want to get on this wave. Developer Nation's 2018 state of the union report of 40,000 developers found that data science and machine learning were the top technologies developers want to learn by a wide margin.

What skills do you want to learn or improve in the next year?

#### All Respondents



Source: Developer Economics: State of the Developer Nation 15th Edition

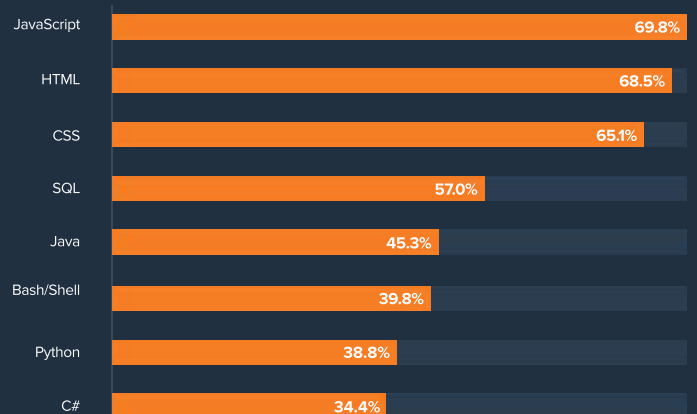
DevelopIntelligence offers numerous [Machine Learning and Data Science](#) courses which are taught by engineers who used to work at companies like Apple, Google, Salesforce, Visa, Wal-Mart, and many others. Given how fast this space is evolving, we will be updating this part of our catalog on a quarterly basis.

### Many developers want to learn more about JavaScript and UI design

As you can see in that Developer Nation chart to the left, UI design is the 2nd most common thing that developers want to learn more about. In most cases, this means JavaScript. The strong demand for JavaScript knowledge has been found by all of the survey reports we reviewed.

#### Programming, Scripting, and Markup Languages

#### All Respondents



Source: StackOverflow 2018 Developer Survey Results

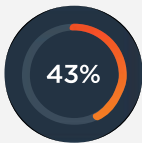
Developer Nation's report found that:

## JavaScript, Python & PHP are growing the fastest

Number of active software developers, globally in millions, (Q2 2018)



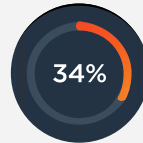
JavaScript



HTML5



Responsive Design



CSS3



jQuery

Since well before the days of jQuery or Angular 1, front-end training has been our bread and butter. We offer 50+ courses on all aspects of the modern front end.

## JavaScript, Python & PHP are growing the fastest

Python is the Swiss army knife of programming languages and is used for web development, back-end development, data science, machine learning, scientific computing, desktop application development and many other parts of computing. Python is one of the most popular languages in use today. The DevelopIntelligence 2018 Developer Learning Survey Report found that Python was the most widely desired language for training by quite a margin. All of the other survey reports corroborate this.

### Training Needed by Programming Language



## OUR SOLUTIONS



### Developer Academy™ For Organizations

Executing a digital transformation or having trouble filling your tech talent pipeline?



### Upskilling & Reskilling For Tech Teams

Need to stay ahead of technology shifts and up-skill your current workforce on the latest technologies?



### New Hire Development For Talent Acquisition

Is your engineering new hire experience encouraging retention or attrition?



### Learning Strategy For Tech Learning

Executing a digital transformation or having trouble filling your tech talent pipeline?

[Download Full Report](#)