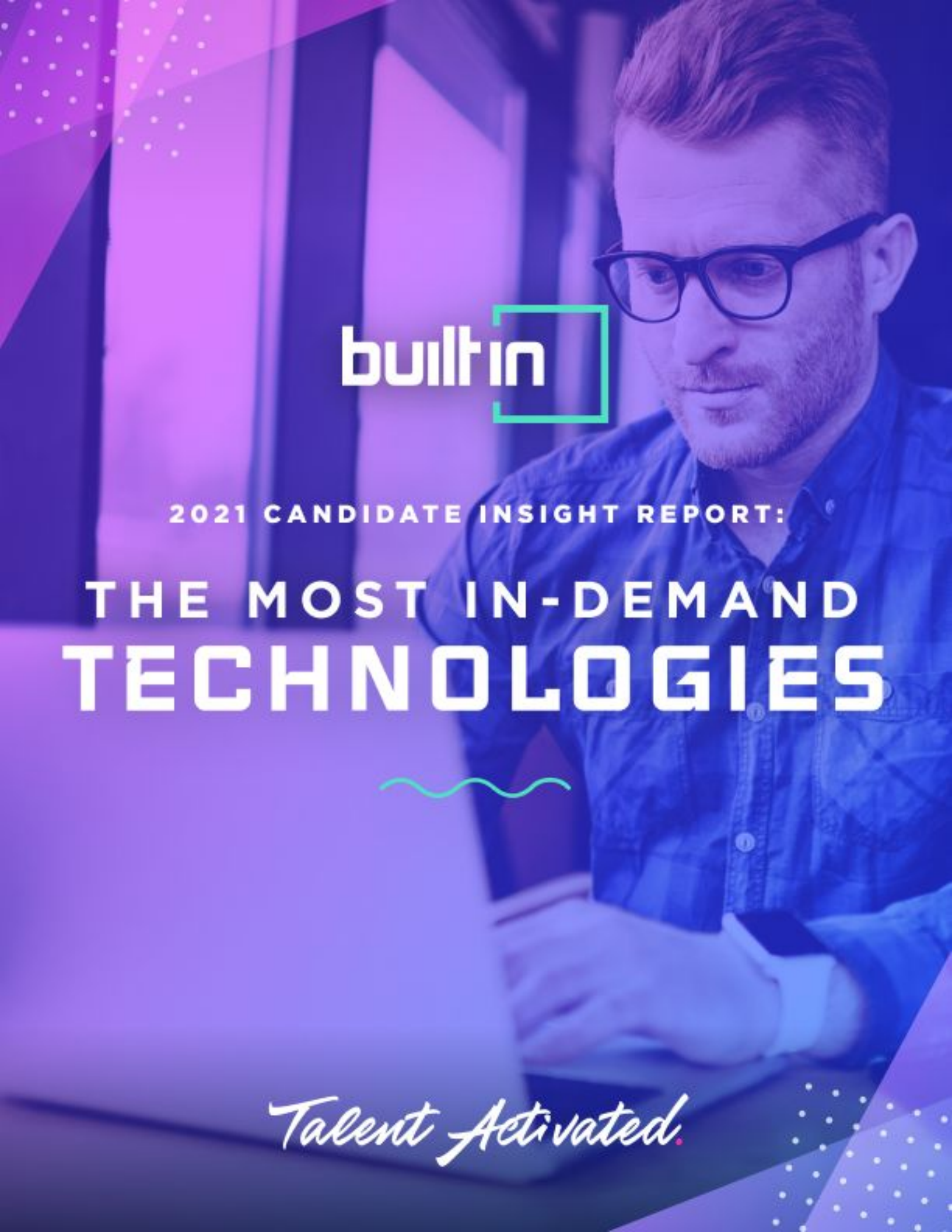

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2021 CANDIDATE INSIGHT REPORT:

THE MOST IN-DEMAND TECHNOLOGIES

Talent Activated.

About the Report.

Did you know you have a secret weapon at your disposal that can help you attract elite tech candidates? That's right — it's your tech stack.

More than half (54%) of technologists say that the languages, frameworks and technologies they'd be working with is the most important factor of a new job opportunity.

Even though interest is high, there are very few organizations who share details about their tech stack with candidates before an interview.

Now, imagine you have data validating the technologies tech candidates favor the most. Would it inspire you to discuss your tech stack more frequently with candidates? Or maybe it would push you to further educate yourself about the technologies your company uses? Well, you're in luck. This report has the data and tips you need to take full advantage of your tech stack as a selling point with candidates.

In this report, you will find the top ten most in-demand technologies for candidates based on user search behavior both nationwide and by location. We also describe how your organization can use its tech stack to attract elite talent and provide you with brief definitions for each technology mentioned.

Don't let the fear of the unknown hold you back from the tech talent you deserve. Use the data from this report to improve your tech recruitment strategy and brush up on knowledge about your company's tech stack.

METHODOLOGY

Report Methodology.

We analyzed first-party user search behavior for technology across seven of our online communities throughout 2020 to determine what technologies are most in-demand with candidates. Website visitors have a list of 57 options from which to choose.

The data in this report comes from the regions of Austin, Boston, Chicago, Colorado, Los Angeles, New York City and Seattle. The ten most popular nationwide technologies were determined by aggregating data from these seven locations. The results are an unfiltered look at the tech stack candidates really want in 2021.

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SECTION I

Top 10 Technologies: Nationwide

To help you better understand the ideal tech stack for candidates, we analyzed the most popular technologies nationwide based on user search behavior within seven of our online communities.

SECTION I

Top 10 Technologies: Nationwide

The following list represents the 10 most in-demand technologies (as measured by user search behavior) at the nationwide level.

1.	Python
2.	Ruby on Rails
3.	JavaScript
4.	Java
5.	C#
6.	Golang
7.	.NET
8.	Node.js
9.	Scala
10.	Oracle

SECTION I

2019 vs. 2020

Here's how candidates' technology preferences changed from 2019 to 2020.

Biggest Riser:
C#

Biggest Faller:
C++

National Breakdown: 2019 vs. 2020		
Rank	**2019**	**2020**
1	Python	Python
2	Java	Ruby on Rails
3	Ruby on Rails	JavaScript
4	JavaScript	Java
5	Node.js	**C#**
6	**C++**	Golang
7	.NET	.NET
8	Golang	Node.js
9	**C#**	Scala
10	Scala	Oracle

SECTION II

Top 10 Technologies by Location

Knowing which technologies are trending at a national level is great, but you're likely more interested in what the candidates in your area are looking for. With that in mind, we also analyzed job seekers' preferred technologies by location to help you understand candidate preferences in your neck of the woods.

SECTION II

Austin

The top 10 technologies based on Austin candidates' preferences in 2020.

1. Python
2. JavaScript
3. C#
4. Ruby on Rails
5. Java
6. .NET
7. Node.js
8. Golang
9. C
10. SAP HANA

Quarterly Changes

Quarter over quarter, here are the biggest riser and faller in Austin:

Biggest Riser: Golang

Biggest Faller: C

SECTION II

Boston

The top 10 technologies based on Boston candidates' preferences in 2020.

1. Python
2. Node.js
3. Ruby on Rails
4. Java
5. JavaScript
6. Golang
7. C#
8. .NET
9. Scala
10. Microsoft SQL Server

Quarterly Changes

Quarter over quarter, here are the biggest riser and faller in Boston:

Biggest Riser: Golang

Biggest Faller: C#

SECTION II

Chicago

The top 10 technologies based on Chicago candidates' preferences in 2020.

1. Ruby on Rails
2. Python
3. Java
4. JavaScript
5. .NET
6. SAP HANA
7. Golang
8. Oracle
9. Scala
10. R

Quarterly Changes

Quarter over quarter, here are the biggest riser and faller in Chicago:

Biggest Riser: Oracle

Biggest Faller: Scala

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SECTION II

Colorado

The top 10 technologies based on Colorado candidates' preferences in 2020.

1. Python
2. JavaScript
3. Ruby on Rails
4. C#
5. .NET
6. Java
7. Oracle
8. SQL
9. Golang
10. Node.js

Quarterly Changes

Quarter over quarter, here are the biggest risers and fallers in Colorado:

Biggest Risers: Ruby on Rails, .NET, Golang

Biggest Fallers: Python, Java, SQL

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SECTION II

Los Angeles

The top 10 technologies based on Los Angeles candidates' preferences in 2020.

1. Python
2. JavaScript
3. Ruby on Rails
4. Golang
5. Java
6. Node.js
7. .NET
8. Swift
9. AngularJS
10. C#

Quarterly Changes

Quarter over quarter, here are the biggest risers and faller in Los Angeles:

Biggest Risers: Golang, .NET

Biggest Faller: AngularJS

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SECTION II

New York City

The top 10 technologies based on New York City candidates' preferences in 2020.

1. Python
2. Java
3. Ruby on Rails
4. JavaScript
5. Golang
6. C#
7. .Node.js
8. Scala
9. .NET
10. Django

Quarterly Changes

Quarter over quarter, here are the biggest risers and faller in New York City:

Biggest Risers: C#, Scala

Biggest Faller: Ruby on Rails

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SECTION II

Seattle

The top 10 technologies based on Seattle candidates' preferences in 2020.

1. C#
2. Java
3. Golang
4. Python
5. Scala
6. .NET
7. JavaScript
8. Node.js
9. Ruby on Rails
10. SQL

Quarterly Changes

Quarter over quarter, here are the biggest riser and faller in Seattle:

Biggest Riser: JavaScript

Biggest Faller: Scala

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SECTION III

How to Showcase Your Tech Stack

As a recruiter, it's not only important to work with your hiring manager to understand the technologies that make up your tech stack, but also how to leverage this information in your recruitment efforts. To help you get started, we identified two channels to share information about your tech stack: your job descriptions and your recruitment marketing materials.

SECTION III

Job Descriptions

Let's review a few prime spots within a job description to discuss your tech stack.

Your Company Description

An analysis of the most successful job posts on our communities found that 69% of job descriptions include a company description, which makes sense given that **23% of candidates believe that the company description is the most important aspect of a job post.**

Including details about your tech stack in a company description is a simple way to provide candidates with the information they care about most. Quickly capturing tech candidates' attention with these details could be the difference between a candidate applying for your role or looking elsewhere for their next job.

Company Descriptions

69%

More than half (69%) of job posts on Built In websites include a company description.

23%

Almost a quarter of candidates (23%) believe company descriptions are the most important part of a job post.

Responsibilities & Duties

Just about every job description features a section on the responsibilities and duties associated with the role in question. This section is so critical, in fact, that almost half of all candidates consider it to be the most important part of a job description. Because candidates consider this section to be so important, there is a better chance they are reading the information within it. Sharing details about your tech stack where you know candidates will be looking is a great way to make sure these details are seen.

SECTION III

Recruitment Marketing

Recruitment marketing is a great way for you to showcase your tech stack in more detail and tie in other priorities tech candidates care about. It is a powerhouse tactic that allows you to give candidates all of the information they need when looking for a new employer.

We've been writing on the subject of technology for years and have mastered the ability to combine subject matter technologists care about the most. Let's take a look at how we do it.

Showcase the Technology Itself

As we previously mentioned, almost 55% of software engineers say the most important factor of a new job opportunity is the technologies they'd be working with. Don't just breeze by this information with a general list — **get in the weeds about how each technology plays a role in your overall tech stack.** This information is the bread and butter of what tech candidates care about so they will appreciate the details. Lean on internal subject matter experts to ensure you're speaking with authority.

Examples:

- Why Go? 8 Engineers Discuss Golang's Advantages & How They Use It
- 8 Tech Companies Discuss The Advantages Of Using React JS
- What Is Scala Used For? 7 Tech Companies Discuss Use Cases

SECTION III

Recruitment Marketing

Showcase Opportunities to Learn and Grow

Software engineers aren't just interested in the tech stack they'd be working with because they like to peek under the hood (though that is part of it). Like all candidates, **they care about opportunities to learn and develop new competencies, and the technologies they'll be working with have a direct influence on their career advancement.** When discussing your tech stack, share details about how your technology will help them personally. Do you offer a professional development stipend? Are you using technology in a unique way? This is how engineers stay current, so they'll be excited about your company's emphasis on developing their skill set.

Examples:

- 4 Local Software Engineers Reveal the Challenges That Helped Them Grow
- These NYC Companies Swear by Upskilling. Here's Why.
- What MineralTree's Spirit of Growth Means for These Devs and PMs

Showcase the Impact They Can Have on the Product/End-User

Software engineers care about the impact of their work, so **showcasing your tech stack in a way that promotes the impact it's having on an industry or its end-users will stand out with candidates.** The more examples and data you can share to back this information up, the better.

Examples:

- Brand Loyalty Was Not Part Of The 'New Normal.' Then, Yotpo Stepped In.
- Teamwork Fueled Braintree's Bill Payment Tech. Here's How.
- Who Thought Up Klaviyo's New SMS Product? Its Customers.

SECTION IV

Technologies Glossary

As a tech recruiter, you should at least have a working knowledge of the technologies used in your organization's tech stack. This will allow you to have more informed conversations with the talent in your pipeline.

To help you get started, we created a glossary of the technologies discussed in this report. We also included links to additional resources for you to learn more. The technologies are listed in alphabetical order, so feel free to skip ahead to the ones you care about most.

AngularJS

AngularJS is a JavaScript framework that allows users to extend HTML to be more dynamic. It's easy to use, works well with other libraries and is adaptable to unique development needs. AngularJS is ideal for Single Page Applications (SPAs).

Links to learn more about AngularJS:

- Research the ins and outs of AngularJS here.
- Learn why users like AngularJS in these case studies.
- Read through the frequently asked questions about AngularJS.

C

C is a computer programming language commonly used by software programmers to build software like operating systems, databases, compilers, etc. It was built in 1972 by Dennis M. Ritchie to develop the UNIX operating system. C is a great programming language to learn for beginners.

Links to learn more about C:

- Dive into everything you need to know about C here.
- Pick from an array of topics to understand how C works.
- Get a tutorial on the programming language, C.

C#

C# (pronounced as "C Sharp") is an object-oriented language widely used when building desktop and web applications. The language was developed by Microsoft and runs on the .NET Framework. It is fairly simple to learn C#, especially if users are familiar with C, C++ or Java.

Links to learn more about C#:

- For a more robust introduction to C#, click here.
- Read more about the elements of C#.
- Explore the tutorials Microsoft offers on C#.

C++

C++ is a programming language that compiles directly to a machine's native code. Its name means "increased C" which was chosen because it is an evolution of the **C language**. C++ is an open ISO-standardized language, meaning a committee within the International Organization for Standardization ensures it functions properly. When optimized correctly, it is one of the fastest languages in the world.

Links to learn more about C++:

- Read more about the elements of C++.
- Check out answers to some of the most frequently asked questions about C++.
- Dive further into C++ using these tutorials.

Django

Developed in 2003, Django is the self-proclaimed as "web framework for perfectionists with deadlines." The free and open-source web application is written in Python. It was constructed by developers to increase the speed at which web applications can be built. The Django framework provides developers with ready-made components so less code needs to be written in order to launch an application.

Links to learn more about Django:

- Click here for a more thorough overview of Django.
- Have a question about Django? This FAQ has the answer.
- Explore the elements of Django in this high-level overview.

Golang

Golang is actually not the proper name for this language; Go is the name intended for it but golang is frequently used because its website and social media channels use this moniker. Go is an open-source programming language built to make programmers more productive. It was created out of Google employees' frustration. The language automates mundane tasks and removes challenges of large code bases.

Links to learn more about FileMaker:

- Here's a further introduction to the Go language.
- Look through some of the most frequently asked questions about Go.
- Take a tour of Go to further your knowledge about the language.

Java

Java is an open-source programming language used by more than 12 million developers. It has cutting-edge capabilities to support mobile, web apps, the internet of things, big data, machine learning and cloud infrastructure. Java is one of the most popular programming languages and has a “write once, run anywhere” model.

Links to learn more about Java:

- Learn more about how Java can be used in different scenarios.
- Walk step by step through these tutorials to explore more of Java.
- Want to take your learnings further? Read through Java’s documentation.

JavaScript

JavaScript is a programming language for the web. It enables web pages to be more than static, allowing interactivity, animated graphics and much more to be displayed. Javascript can be used for front-end client side code, back-end code for servers and game development. Its robust capabilities make it one of the most widely used languages in the world.

Links to learn more about JavaScript:

- Start here to learn the basics of Javascript.
- See how Javascript stacks up against other languages with this data.
- Take a beginner course on Javascript to expand your knowledge.

Microsoft SQL Server

Microsoft SQL server is a relational database management system, which means it allows users to retrieve and store data from other software applications. It is one of the leading database technologies available, with dozens of different editions to serve a wide-range of needs. Since the database management system is built on top of SQL, users are able to not only manage the data but query it as well.

Links to learn more about Microsoft SQL Server:

- See the benefits of Microsoft SQL Server here.
- Explore how companies are using Microsoft SQL Server.
- Learn how Microsoft SQL Server works.

.NET

.NET is a developer platform for building web, mobile, desktop, cloud and many other applications. It is a free and open-source platform created by Microsoft. The platform allows applications to have better response times while also using less computing power. It is self-proclaimed as the “most productive platform for developers.”

Links to learn more about .NET:

- Get a more in-depth introduction to .NET.
- See all of the applications that can be built on the .NET platform.
- Learn why people choose the .NET platform.

Node.js

Node.js is a free, open-source server environment that can perform JavaScript code outside of a browser. It can build scalable network applications and run on multiple platforms such as Windows, Linux, Mac OS and many others. The node.js environment is memory efficient and eliminates waiting for developers.

Links to learn more about Node.js:

- Here’s a more detailed description of Node.js.
- These guides will help you learn more about Node.js.
- Level up your expertise with Node.js by reading through this documentation.

Oracle

Oracle is a relational database management system that helps enterprises manage their data. It is cost-effective and high-performing. It also supports modern applications and has an array of editions for businesses to choose from. Oracle uses the query language, SQL to interact with the database.

Links to learn more about Oracle:

- This introduction will help you understand the basics of Oracle.
- Get a brief synopsis on what Oracle is and its advantages against competitors.
- Hear from Oracle itself about everything you need to know about this database.

Python

According to its website, “Python is a programming language that lets you work quickly and integrate systems more effectively.” It is an open-source language that was launched in 1991. The language is easy to learn for both first-time programmers and more experienced professionals. Python describes itself best: “it is powerful...and fast; plays well with others; runs everywhere and is friendly & easy to learn.”

Links to learn more about Python:

- Check out this overview of Python for non-programmers.
- Get the answers to some of the most frequently asked questions about Python.
- Here’s a full tutorial on the Python language.

R

According to its website, “R is a programming language and free software environment for statistical computing and graphics...” It’s used to develop a wide array of statistical software that statisticians and data miners use for data analysis. R can run on a variety of platforms, including UNIX, Windows and MacOS.

Links to learn more about R:

- Check out this in-depth introduction to R.
- See the latest from the programming language, R.
- Explore frequently asked questions about R.

Ruby on Rails

Ruby on Rails, sometimes referred to as Rails for short, is a free, open-source web application framework. The framework was built using the Ruby programming language and officially released to the public in 2004. Rails helps Ruby developers write code more quickly and efficiently.

Links to learn more about Ruby on Rails:

- Read about how Ruby on Rails got its start.
- Want more information about the basics of Ruby on Rails? Start here.
- When you’re ready to take your learnings to the next level, read through the Ruby on Rails API documentation.

SAP HANA

SAP HANA is a relational database management used to retrieve and store data from applications. It also functions as an application server, allowing users to extract insight-driven information. Companies use SAP HANA to make real-time, data-driven decisions thanks to its advanced search, analytics and data integration capabilities.

Links to learn more about SAP HANA:

- Level up your knowledge on SAP HANA with this introduction.
- Watch this video to understand what SAP HANA does.
- Take a look at the key features of SAP HANA here.

Scala

Scala describes itself as “a beautiful, modern, expressive programming language.” It is object-oriented and works seamlessly with Java. The language was created to help developers concisely build common programming patterns.

Links to learn more about Scala:

- Check out this robust introduction to Scala.
- Reading through the Scala FAQs can help you understand the language further.
- Use this glossary throughout your Scala research to keep up with the terms being discussed.

SQL

SQL, an acronym for Structured Query Language, is a database management language meaning it can communicate with databases. It is commonly used with the following database management systems: Oracle, Sybase, Microsoft SQL Server and many others. SQL has the capability to update and retrieve data from these systems.

Links to learn more about SQL:

- Here’s an in-depth look at SQL.
- The basics of SQL are discussed in this article.
- Check out this tutorial on SQL to learn more.

Swift

Swift is an open-source programming language that can be used on a variety of platforms from mobile devices to the desktop to the cloud. The language is fairly new, launching in 2014, and is one of the fastest-growing languages in history. Swift's goal is to "make programming simple things easy, and difficult things possible."

Links to learn more about Swift:

- Start your research by understanding the basics of Swift.
- Read the ins and outs of the Swift language here.
- This guided tour of Swift will help you be more knowledgeable about the language.

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