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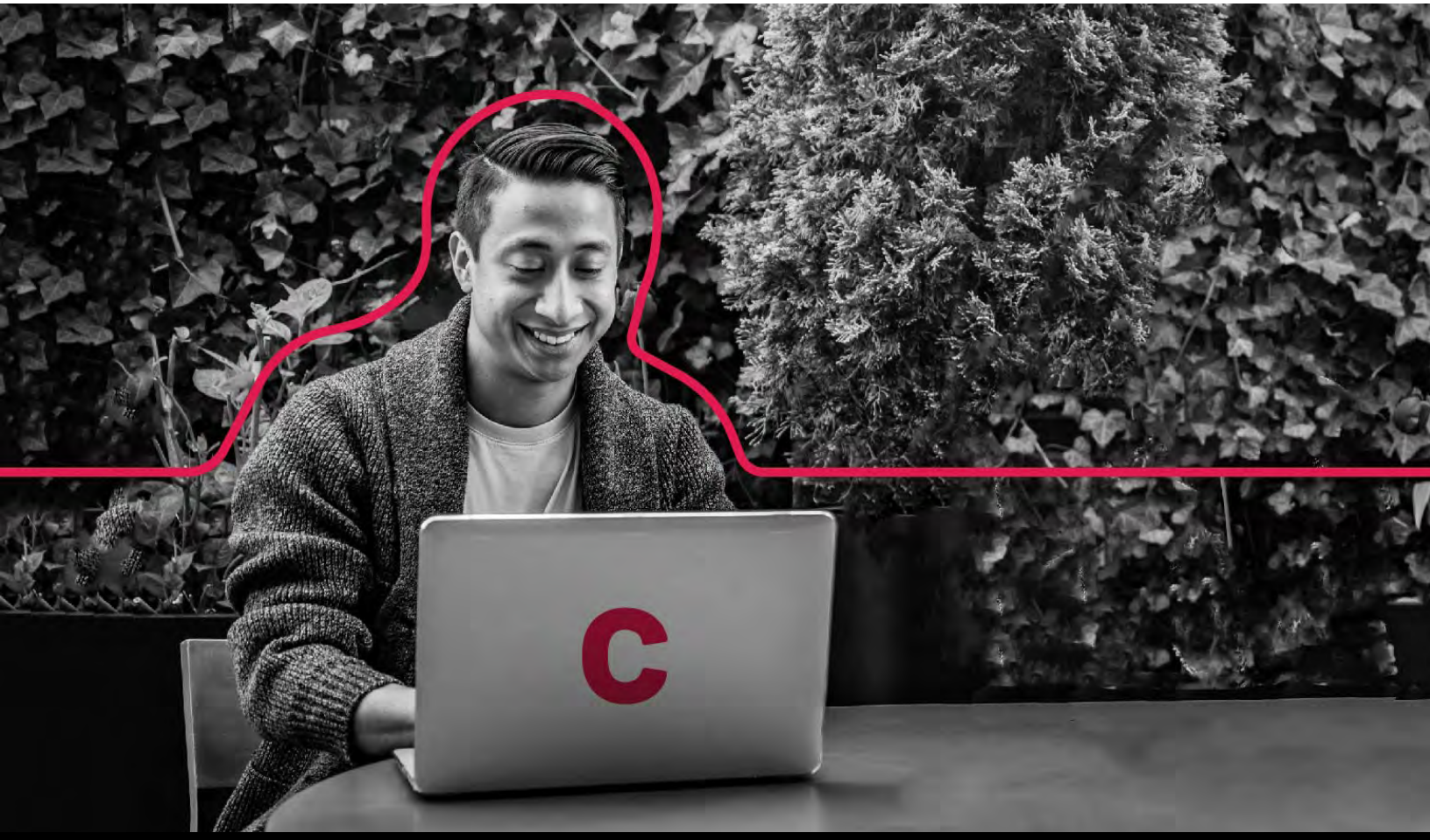
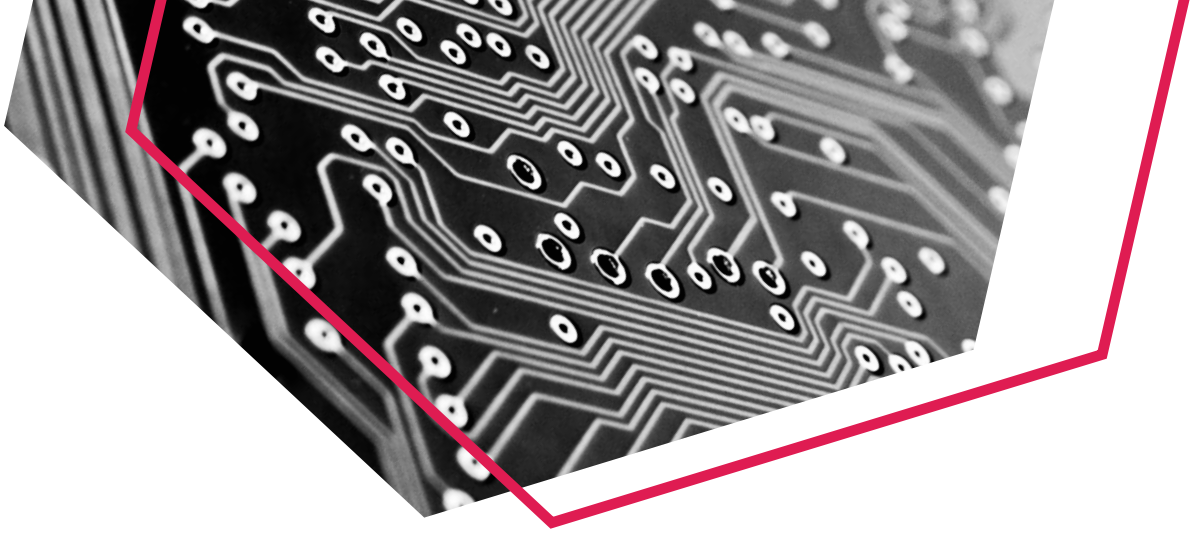
10 STEPS TO BECOME A BLOCKCHAIN DEVELOPER

By Justin Reynolds

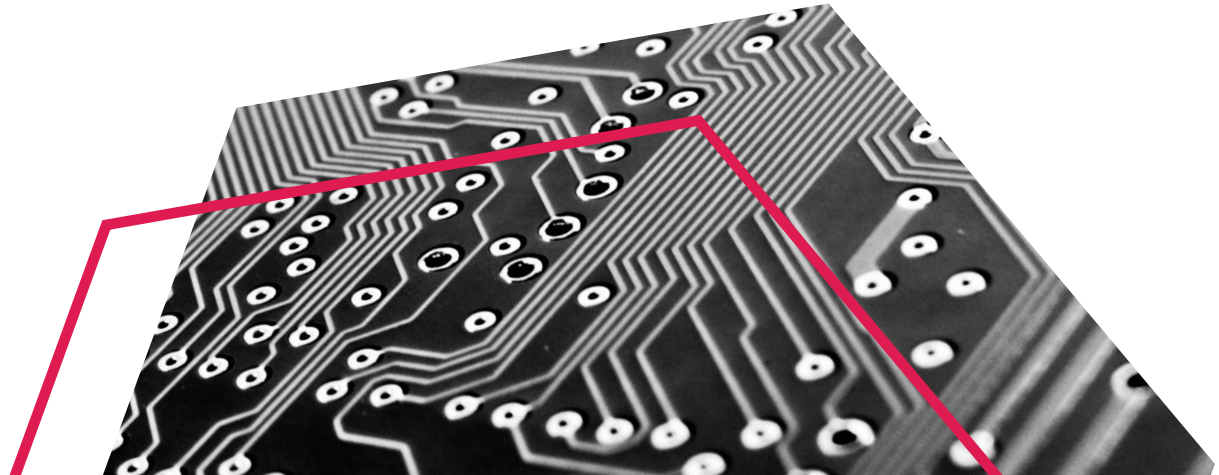




In December 2017, the price of Bitcoin soared to nearly $20,000 before falling back down to earth. As other cryptocurrencies—like Litecoin, Ethereum, and Dash—followed similar trajectories, many pundits started wondering whether the promise of blockchain was nothing more than a passing trend.

It remains to be seen whether blockchain technology will reach its full potential and when that will happen. But those betting against blockchain are likely in for a rude awakening. The blockchain market, by all accounts, is on fire. The industry is expected to grow[1] to $23.3 billion by 2023—quite the increase from the $1.2 billion the market brought in during 2018. While blockchain hasn't yet made it to the big leagues, organizations are increasingly investing in the new technology and building blockchain-powered applications on top of it. In fact, 74 percent of organizations believe their businesses will benefit[2] from blockchain technology. Many just aren't sure precisely how.

This all sounds great, but there's just one problem: the demand[3] for blockchain developers continues to increase at a rapid clip, but the supply of talent is struggling to keep up. If you're interested in becoming a blockchain developer, there's no better time than now to begin your journey. Follow these ten steps to learn the blockchain developer skills you need to get started on a new career path that promises wealth, prestige, and an opportunity to change the world.

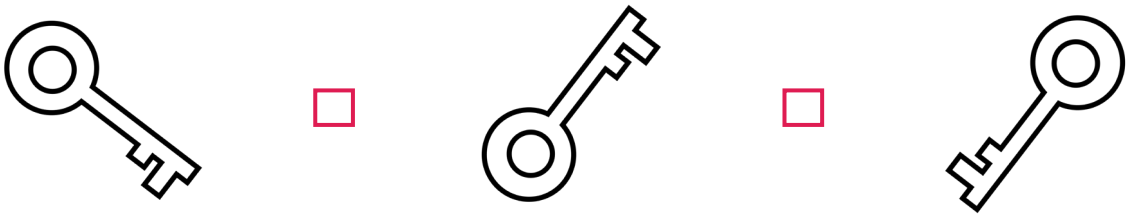


STEP 1: UNDERSTAND COMPUTER SCIENCE

If you don't know much about computers besides how to turn them on and off and how to access websites, it's going to be very difficult to learn how to develop applications on blockchain.

So first things first: you need a basic understanding of computer science. Learn about how computers are designed and how they work (i.e., hardware architecture) and how the software that runs on computers is created. You'll also want to touch upon cryptography and algorithms, two critical components of blockchain technology.

The better you understand how computers work, the easier it will be to build blockchain apps. You don't necessarily have to become an expert in computer science to succeed as a blockchain developer. But lacking an understanding of these basic building blocks of computer programming and trying to work on blockchain is akin to asking someone who doesn't know English to write the next great American novel.



STEP 2: ADOPT A HACKER'S MINDSET

Blockchain technology is still relatively new and, as such, its future is unpredictable. Few people can imagine the types of transformative applications that will be built on blockchain in the years to come.

As such, it comes as no surprise that blockchain developers possess a hacker's mindset. They're always running into problems because they're inventing things that have never been built before. Instead of letting those problems thwart their progress, today's most talented blockchain developers thrive in the face of adversity. They're always testing out multiple solutions to figure out how to overcome any obstacles they encounter during their day-to-day.

Success with blockchain development starts with having a hacker's mindset. Understand that things, and even the most familiar things, are hackable.[4] Everything can be rebuilt and redesigned to deliver even more value to end users.

STEP 3: GET FAMILIAR WITH THE BASICS OF BLOCKCHAIN

With a decent grasp on computer science and the right mindset, you're well on your way to mastering blockchain developer skills. Now, it's time to master some of the terminology you're bound to encounter as you begin tinkering with blockchain applications.

1. **Blockchain -** A secure, decentralized digital ledger of transactions that are verified by miners and cannot be falsified.
2. **Miners -** Individuals or groups of individuals who use lots of computing power to perform complex mathematical computations to verify transactions and are rewarded with fees for their work.
3. **Cryptocurrency -** A digital currency (e.g., Bitcoin) that uses cryptography to ensure transactions are secure and verifiable.
4. **Node -** A unique participant on a blockchain ledger.
5. **Private key -** An alphanumeric string that serves as an anonymous address and is used to facilitate transactions on blockchain networks.
6. **Public key -** An alphanumeric string that is used to receive bitcoins and other cryptocurrencies.
7. **Proof-of-work (PoW) -** A method of rewarding miners with fees when they can verify they've solved a complex mathematical equation. Bitcoin, for example, uses PoW to pay miners.
8. **Proof-of-stake (PoS) -** A method of rewarding miners with fees where mining power is directly correlated with how many coins a particular user owns; the more coins you have, the more mining power you have. Ethereum currently uses PoW but has discussed[5] moving to PoS in the future.
9. **Decentralization -** A distributed network that cannot be controlled by a single person or organization. Bitcoin, for example, doesn't have a leader or a company behind it.
10. **dApp -** A decentralized app, or dApp, is an open source application that operates autonomously and isn't controlled by a single company or group.

There are countless other terms that you'll likely encounter as you become more familiar with blockchain. But these 10 terms will give you a head start on understanding the blockchain universe.

STEP 4: LEARN EVERYTHING YOU CAN ABOUT BITCOIN

Once you've got the basics of blockchain down, it's time to start learning about the granddaddy of all crypto: Bitcoin.

Bitcoin is the most popular use case for blockchain technology and, as such, is unsurprisingly the most valuable cryptocurrency.

Read the original white paper[6] by Satoshi Nakamoto, the anonymous founder of Bitcoin, to wrap your head around the basics. While you're at it, read up[7] on apps being built on the Bitcoin blockchain using the Lightning Network.

STEP 5: LEARN EVERYTHING YOU CAN ABOUT ETHEREUM

Ethereum, created by Vitalik Buterin, is the second most popular and valuable cryptocurrency. The decentralized platform can facilitate smart contracts—i.e., contracts that are automatically executed exactly as designed and cannot be interfered with by third parties.

This functionality has the potential to disrupt many industries, including the legal industry. What if you could use a smart contract on the Ethereum blockchain to replace the services of a $400-an-hour lawyer?

Developers are increasingly building applications on top of the Ethereum network. When you become a blockchain developer, you might find yourself tinkering around with Ethereum. If that's the case, you probably should read the Ethereum white paper,[8] too.

STEP 6: DETERMINE YOUR GO-TO TRUSTED NEWS SOURCES

Since it's still relatively new, blockchain technology is constantly changing. In order to keep pace, you need to stay on top of all the latest news and developments in the space. In the era of "fake news," it is critical that you find a number of trustworthy sources you can rely on to keep you informed of the latest happenings. Some of the more popular crypto news sources are as follows:

- CoinDesk
- Cointelegraph
- CCN
- TodayOnChain
- BTC Wires

Once you've figured out which ones you like best, keep tabs on them to keep your fingers on the pulse of the blockchain industry.

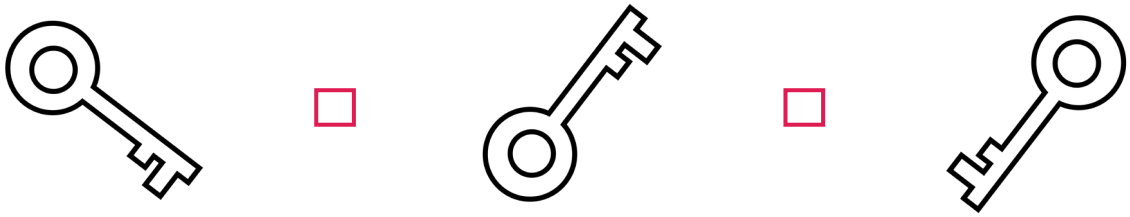
STEP 7: JOIN COMMUNITIES OF BLOCKCHAIN DEVELOPERS

The news will only take you so far. Even if you read about every single development that's published, you still need to take a peek behind the scenes every now and again to find out what's really happening.

If you want to become a great blockchain developer, you need to start getting active in blockchain communities online.

Medium and Twitter are both known for their vibrant crypto communities. You can also head on over to Reddit and subscribe to r/BlockChain/, r/CryptoCurrency/, r/Bitcoin/, and r/ethereum and join in on the discussion.

Once you've found your online home and you've gotten comfortable there, pick up your digital pen and share your thoughts when the time is right. You never know when your ideas might catch the right person's eyes, making your quest for a job as a blockchain developer that much easier.



STEP 8: BUILD YOUR OWN BLOCKCHAIN APPLICATION

By now, you've become familiar with blockchain—Bitcoin and Ethereum in particular. You have the right mindset and you know where to look for news and who you can turn to for advice when you need it.

It's time to start building your first blockchain application. Not only will this help you develop and refine your blockchain developer skills but it will also help you persuade hiring managers to give you an offer down the line. Think of it as another piece of your portfolio.

For the purposes of this guide, let's say you decide to build a dApp on the Ethereum blockchain. (Here's a great reference[9] if you're getting stuck.) Once you've figured out what you want to build—and remember, it doesn't have to be anything crazy (we're looking at you, CryptoKitties!)—it's time to hunker down and start plugging away.

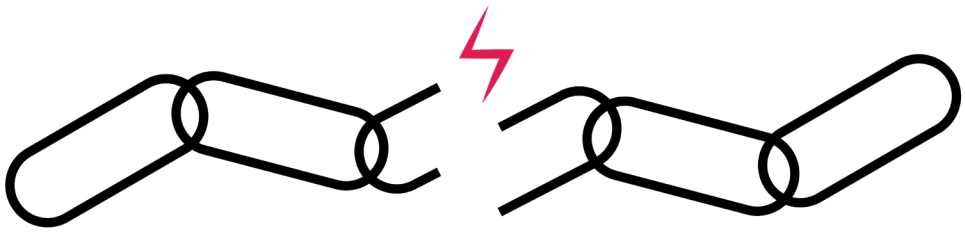
Not that confident in your skills just yet? No problem. Use a platform like OpenZeppelin to launch an Ethereum project with only a few lines of code.

STEP 9: ASK YOUR NEWFOUND BLOCKCHAIN COMMUNITY FOR SOME FEEDBACK

You might think you've built the best blockchain app the world has ever seen. But if other developers and members of the community don't agree, what good is it?

Once you've built your app and have polished it to the point that you're proud of what you've accomplished, it's time to share it with the community and solicit their feedback. More experienced developers will be able to let you know what's working, what isn't working, and what areas can be improved.

Use their feedback to continue iterating your app and see what you can do to make it better. Remember, your blockchain application can serve as a digital portfolio of sorts. If someone's going to hire you to build applications on blockchain, they'll want to see what you're capable of doing before extending an offer. The better your app is, the more likely you'll be to convince a hiring manager that you're the right person for the job.



STEP 10: BEGIN YOUR JOB SEARCH— OR BUILD YOUR OWN COMPANY!

You've mastered blockchain, found a home in several online communities, and built your first blockchain application. Nice work!

Now it's time to cut to the chase and start looking for your next dream job. With the right slate of skills in place, you shouldn't have that hard of a time finding a job you love.

In 2018, blockchain developers ranked number one on LinkedIn's emerging jobs list.[10] In 2018, the demand for blockchain developers was 33 times higher than it was in 2017. Since blockchain is still an emerging technology, we expect the demand for blockchain developers to continue to grow in 2019 and beyond—which means talented people like you should have their pick of the litter when it comes to finding a job.

Remember, you don't necessarily have to work for someone else to become a blockchain developer. You can always build your own company or network—just like Satoshi and Vitalik.

BECOMING A BLOCKCHAIN DEVELOPER IS WITHIN YOUR REACH!

You won't be able to become a blockchain developer overnight. Mastering something, after all, takes 10,000 hours of study and practice, as they say.

But you can start moving forward on the path that leads you to a career as a blockchain developer right now. Take things one step at a time and don't feel discouraged if it takes you a long time to figure things out. Blockchain is still a relatively young technology, and it's a complex and complicated one at that.

By studying the technology, staying abreast of the latest trends in the space, and becoming an active member of online blockchain communities, you're well on your way to becoming a blockchain developer.

So work hard and keep at it. Good things are right around the corner. Can't you tell? Good luck and happy hacking!

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Justin Reynolds is a Freelance Copywriter, Editor, and Content Strategist with more than 10 years in the copywriting realm. Justin synthesizes complex data into actionable copy. He currently writes for Mattermost, SmartBug Media, DataStax, The Duckbill Group, Datameer, and Questex.

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