

Part of the **ABC**'s
of Technology series

HUMANS OF BLOCKCHAIN:

Innovations and Hiring Trends in APAC

Top hiring trends
in blockchain

Insights from blockchain
experts across Asia Pacific

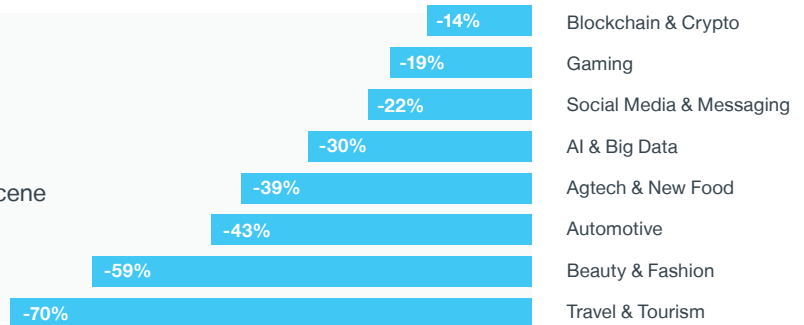
Blockchain innovations
in 2020 and beyond

Practical tips for recruiting and
retaining blockchain talent

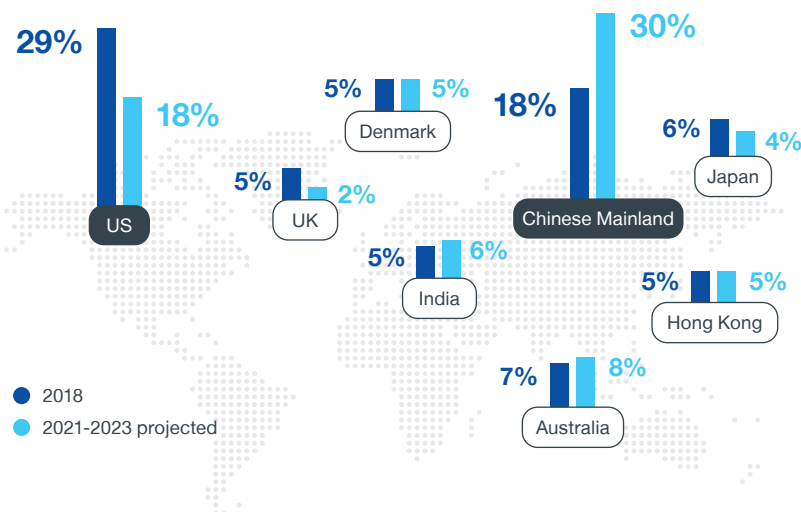
BLOCKCHAIN — AT A GLANCE

Blockchain & Crypto revenue
least affected by COVID-19

Impact of COVID-19 on the global startup scene
- change in revenue for startups in selected
sectors since the start of the pandemic



Which territories will be seen as
blockchain leaders in the near future?



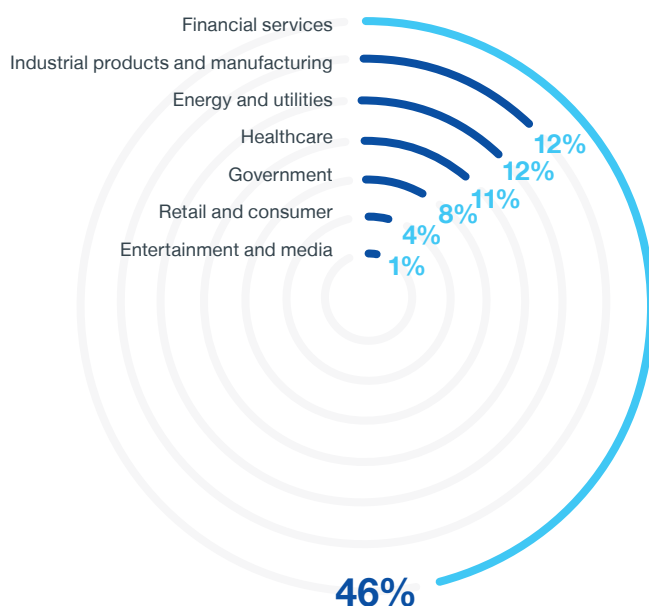
US\$ **39.7** billion

The global blockchain market
size by 2025, up from US\$3
billion in 2020

US\$ **16** billion

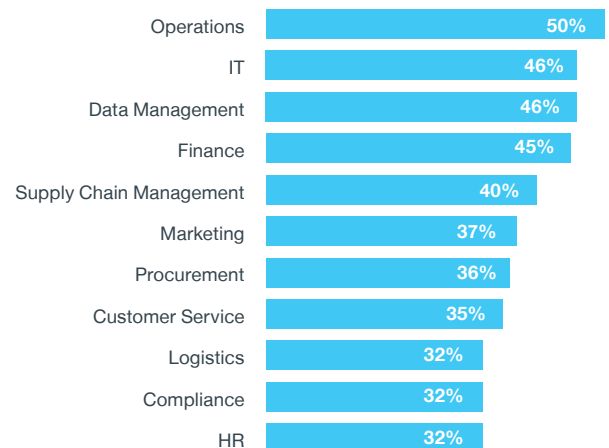
The value of APAC's blockchain-
based industries by 2024

Which industries are seen as leaders in blockchain



JOBS IN BLOCKCHAIN

How blockchain will affect businesses/
functional roles in APAC?



JOBS IN BLOCKCHAIN

26%

The increase in crypto- and blockchain-related jobs since 2018

1,457%

The growth of cryptocurrency-related jobs in the last four years

18%

of CIOs say blockchain skills are the hardest to find of any technology skill

HIRING IN BLOCKCHAIN



New jobs created by blockchain (Indeed)

- Senior Software Engineer, Cryptocurrency
- Cryptocurrency Analyst
- Cryptocurrency Developer
- DevOps Engineer — Bitcoin Enthusiast
- Analyst (Cryptocurrency)
- Cryptocurrency Trader
- Project Manager — Cryptocurrency
- Product Manager — Cryptocurrency
- Certified Cryptocurrency Specialist Positions — Direct Sales
- Cryptocurrency Mining Technician
- COO (Cryptocurrency)
- Direct Sales Associate — Cryptocurrency
- Systems Engineer (Trading Cryptocurrency)
- Data Scientist (Cryptocurrency)
- Cloud Engineer with Bitcoin Protocol / Blockchain
- Bitcoin Full-Stack Developer
- Cryptocurrency Mining Lead
- Cryptocurrency Research Analyst (Internship)

Survey insights from a total of 503 managers, executives and professionals across Asia Pacific

Top challenges when recruiting blockchain talent

42%

Gap in candidate skill set

29%

Shortage of talent

29%

Recruitment budget constraints

Top soft skills you would like to see in blockchain talent



42% Adaptable to new technology



28% Analytical capabilities



16% Stakeholder management

Most critical factors to blockchain development



44%

Developing a skilled workforce



34%

Government regulations



12%

Market demand

Average monthly searches for “blockchain” on Indeed in APAC

531 Singapore

90 Malaysia

294 Hong Kong

69 Philippines

218 Australia

39 New Zealand

151 Japan

References

<https://www.statista.com/chart/22134/coronavirus-impact-on-startups/>
<https://www.pwc.com/gx/en/industries/technology/blockchain/blockchain-in-business.html>
<https://www.coindesk.com/crypto-and-blockchain-jobs-have-increased-by-26-since-2018-indeed>
<https://venturebeat.com/2019/11/07/indeed-share-of-cryptocurrency-jobs-grew-1457-in-4-years/>
<https://enterpriseproject.com/article/2018/8/blockchain-jobs-numbers-11-notable-stats>
<https://www.cognizant.com/whitepapers/the-future-of-blockchain-in-asia-pacific-codex3240.pdf>
<https://business.linkedin.com/content/dam/me/business/en-us/talent-solutions/cx/2019/PDF/linkedin-future-of-skills-apac-web.pdf>
<https://www.techrepublic.com/article/18-new-it-jobs-created-by-bitcoin-and-blockchain/>

INNOVATION AND HIRING

Top blockchain trends and what to hire for in 2021

Anybody with even a passing knowledge of banking, investing and financial services would have heard about the rise of blockchain technology in the last decade. While the technology has so far been associated mostly with the introduction of bitcoin, its application has since ballooned into an entire market unto itself. Even businesses that are not typically operating within the financial space, too, are looking towards blockchain for its various developments, applications and commercial possibilities.

With that said, curiosity for blockchain is only the beginning. The next step is to lay the ground-work by hiring the right talent for the job — but what kind of skills are required for blockchain? What are the upcoming trends in this field? To answer these pressing questions, Michael Page reached out to tech leaders from across the Asia-Pacific region — and here are the insights.

IN SIMPLER TERMS

Blockchain is an open, decentralised database that records transactions of any kind between various parties without the need for middlemen. These transactions can be anything from money and goods to properties and even taxes. And because blockchain is built on cryptography and connects a vast network of other computers, transactions are immutable, traceable, transparent and difficult to fake.

Top blockchain trends and innovations

1 MORE OPTIMISM AROUND DIGITISATION



As the global economy continues to grapple with the COVID-19 pandemic and its aftermath, one unintended silver lining is the optimism around digitisation. Having gone through (or still going through) city- or nation-wide lockdown, many business operations have proven themselves viable even in the digital space. As Chief Technology Officer at Fusang Group, Michel Dinh is especially optimistic about such development.

Fusang Exchange, a subsidiary of Fusang Group, is Asia's only stock exchange that offers security tokens — or trading done with digital assets. The move towards digitisation, then, is a huge boon not just for Fusang, but the entire financial industry as a whole. “We think that regulators have recognised the new normal. They’ve seen the benefits of digitising various processes,” Dinh explains. “We hope that more financial sectors and businesses will look at blockchain as an enabler of efficiency.”

a complement to existing currencies, which will in turn help push adoption of blockchain-related technologies. “Digital currencies are not going to replace your US dollars,” Dinh chides. “But they can say that there’s another way the finance sector can make payments, and with the backing of central bank regulators, that’s going to help the whole industry.”



2 ENTHUSIASM FROM THE BIG PLAYERS



One reason why blockchain has yet to reach mainstream status is partly due to a lack of use cases beyond cryptocurrency — at least for the time being. Dinh believes that, with traditional financial institutions having found success with utilising blockchain to boost efficiencies, this will likely have downstream benefits across the entire finance ecosystem.

Max Soyref is the Associate Director of Blockchain from KPMG Australia. He too has seen the beginnings of much maturity around blockchain. “Many enterprise players are starting to embrace the technology, which means more development and more applications that use it. In the long run this will mean more value created and business problems solved,” he said.

Central banks in the region, too, are taking an interest. The hope is that central banks will, in the near future, recognise digital currencies as



For blockchain to mature, we need large banks and financial institutions to come in and bring the right expertise and know-how.

Michel Dinh, Chief Technology Officer, Fusang Group.

3 BLOCKCHAIN-ENABLED SUPPLY CHAIN



Xiao Shiyuan, Chief Scientist at Shanghai Dianrong Information Technology, sees numerous other use cases for blockchain beyond the financial landscape. Soyref concurs, having observed a growing enthusiasm around blockchain among enterprises, particularly in the last three years. Instead of seeing it as a 'magic tech' that will solve all problems once and for all, businesses are now taking a more nuanced approach — that is, what problems can blockchain specifically address and what opportunities it puts on the table. "Moving away from the hype, blockchain applications are now focused on what value it can bring to the business through its properties of immutability, data reconciliation and sharing. In supply chains, this can create tangible business outcomes, such as being able to tell product provenance stories, sharing quality and real-time transportation data, or help organisations manage risks through predictive analytics or recall management based on their traceability data," Max elaborates.

Aside from its utilisation by big and central banks, Xiao believes another area that will stand to benefit significantly from the advent of blockchain is, perhaps surprisingly, supply chain financing. "Core enterprises have a large number of suppliers, and these suppliers have their own suppliers," Xiao explains. On top of that, there are financial institutions, anchor corporations and logistics companies to account for also. This means that the longer the supply chain goes, the harder it is for financial institutions to keep track of finances.

Blockchain, by being immutable, traceable and fully transparent, offers a viable solution for enterprises. This establishes a foundation



If you want to innovate and push the dial a little bit, start with a business problem and a minimal viable experiment.

Max Soyref, Associate Director of Blockchain, KPMG Australia

of trust for all parties involved, alleviating a significant pain point in the financing process. In the near future, Xiao predicts that many more will adopt a similar approach.

4 BLOCKCHAIN-ENABLED MEDICAL INSURANCE



There are many applications of blockchain in the insurance space also, chief of which being the way claims are made. The process by which customers make medical claims, as it is

OTHER APPLICATIONS OF BLOCKCHAIN



RECRUITMENT

No more taking resumes and LinkedIn profiles at face value. Blockchain-powered recruitment allows hiring managers to access the candidate's full employment and education history instantly.



REAL ESTATE

Blockchain removes the confusion of paper trails. This means that, when buying or selling properties, everything from title transfers to legal ownerships will be transparent, traceable and simplified using blockchain.



SMART CONTRACTS

Digital contracts are self-executing and self-maintaining, which means that no third parties, such as lawyers and notaries, are required for their creation and completion.



DIGITAL IDENTIFICATION

Blockchain will remove the need for physical identification, such as identity cards, driver's licences and passports. Aside from the convenience, this could potentially resolve the issue of identity theft.

now, is convoluted to say the least. Aside from submitting a slew of documents to insurers as evidence, insurers themselves face the very real threat of false applications and claims.

The added security and trust between entities via blockchain means that it will be easier and more transparent than ever for medical claims to be made. “In the future, all you need to do is to see a doctor, scan a QR code and confirm the cost after a specific treatment,” Xiao predicts. “You won’t have to worry about settlements, expenses and claims. All of this will be done automatically.” And because all the medical data are interconnected and cross-validated, the risk of false applications and claims are low. In fact, Xiao’s Shanghai Dianrong Information Technology is already working on a blockchain-based medical insurance platform in Hong Kong. So far, more than 10 insurance companies and 200 private clinics have signed on, with 4.5 million users as of August 2020. “Right now, private clinics are the ones connected on the platform, but I believe more and more public hospitals, too, will join in,” Xiao said.

5 ANCILLARY TECHNOLOGIES WILL PLAY A LARGER ROLE



Another hurdle for blockchain-based business applications actually has nothing to do with

blockchain itself. Xiao believes that, in order for blockchain to go mainstream, a number of other technologies need to be involved as well. “It is very difficult to launch a blockchain-based product if you only have blockchain technology on its own,” he said. “You also need the Internet of Things, sensors and microchips and artificial intelligence to work in concert to solve problems in a practical sense.” Even though the business requirements for blockchain is very high, Xiao believes that this is ultimately good for talent working in the field, because it forces them to improve their knowledge and abilities beyond the technical.

6 BLOCKCHAIN INVESTMENT ON HOLD (FOR NOW)



Even though the fintech industry has been relatively resilient to the impact of COVID-19, disruptions have come from a different quarter entirely. “Businesses are focusing on cash-flow and survival, which means focusing their innovation budgets on investments that can either improve their operational efficiency — the bottom line — or help them bring new products or services to their clients,” Soyref notes. “We think that organisations will assess their tech and business roadmaps based on value-add potential and this is where blockchain solutions will see the next generation of opportunities.”

ADVICE

FOR TRENDS IN BLOCKCHAIN



JESSICA ATHERTON

Research Analyst,
Commonwealth Scientific and Industrial Research Organisation to CSIRO’s Data61

Blockchain might hit the plateau of productivity within five to 10 years, but only if technology advancement continues rapidly and if trust dramatically shifts away from centralised institutions in favour of decentralised blockchain systems.[^]



DR ALEXANDRA BRATANOVA

Research Scientist,
Commonwealth Scientific and Industrial Research Organisation to CSIRO’s Data61

By having soft skills involved in the development of blockchain technologies, we’ll start to see expectations rise in what blockchain is capable of, and more of a willingness to incorporate it into business activities.[^]

[^] <https://protect-eu.mimecast.com/s/oSgFCAP0nu0EnGDcBY0wY?domain=algorithm.data61.csiro.au/>

Top hiring trends in blockchain

1 HIGH ON PASSION, SHORT ON EXPERIENCE



The industry is not short on passionate developers and engineers eager to work with blockchain. What's lacking, according to experts, is real-world experience, especially in the financial sector.

Dinh, for one, said that while technical proficiency is no doubt important, skill sets can ultimately be trained. Industry experience, on the other hand, takes time, and many developers and engineers fall short on that front. Even in relatively mature markets in Singapore and Hong Kong, because blockchain itself is an immature technology to begin with, high-quality candidates in this field are narrow to say the least. Soyref, too, agrees. "Not everyone will need to build a product from scratch. While knowledge of smart contracts or strong programming fundamentals is important, the business side is also critical. Finding people that understand the value blockchain creates and can also translate it into business outcomes across business analysis, product and traditional project domains is vital," he said. "We need more people supporting business services with a strong understanding of blockchain, including accountants, lawyers and tax people that understand public and enterprise blockchains."

box, have great soft skills and are very comfortable at communicating with clients," he says. "I am of the view that it's better to hire a great engineer who is a fast learner over an average engineer who is well-versed in blockchain."

This is the case in China as well. For Xiao, he judges candidates by their learning and problem-solving ability by way of their past projects. "We prefer talent with strong teamwork ability and resilience," he says.

3 BLOCKCHAIN LEADERS WITH LATERAL THINKING



Xiao explains that there are two types of leaders in tech: one with vertical expertise that delves deep into a particular field to solve technical problems; one with wide, lateral expertise, such as industry knowledge, commercial sense

2 SOFT SKILLS COME TO THE FORE



Industry experience is one thing, but employers in this space are increasingly looking for soft skills in their potential candidates. Soyref, for one, says that the people they hire at KPMG are not only technical experts — they bring strong subject matter expertise. "We are not just looking for top-notch tech talent, but people who can think outside the



You cannot invite companies to adopt blockchain without first taking care of privacy and data security issues.

Xiao Shiyuan, Chief Scientist at
Shanghai Dianrong Information Technology

and team management capabilities. “They must also know how to manage a project, build a team and match the best talent to the best position,” he elaborated. This latter kind of leader is also currently lacking in the blockchain world, specifically among startups and small- and medium-sized enterprises.

4 AUTONOMY AS RECRUITMENT STRATEGY



Competition to attract top tech talent was fierce going into the COVID-19 pandemic, and the race is not slowing down anytime soon. In terms of blockchain-specific talent, Soyref believes that it all comes down to providing them with autonomy and interesting work. “If you are a blockchain developer, you often can choose where to work, decide whether you are challenged and try new things. You are in control of your own destiny. I think that’s the recipe for retention.” Soyref added that because blockchain is such a new, emerging technology, it is very possible to build the ‘first something for something’ — an opportunity that also attracts a particular type of talent.

Dinh, too, shares such sentiments. For Fusang, the pool of talent in the digital asset space often overlaps with those in virtual banking — another up-and-coming trend in the financial world. What puts companies like Fusang slightly on the back foot is the fact that many virtual banks have backings from traditional financial institutions. “We know that, salary and compensation wise, it is harder for us to compete,” Dinh admits. “That is why, at Fusang, we are constantly working on different business domains, such as issuance and listing, trading and digital KYC processes. We even built our own custody platform. I think with diversification of projects and businesses, and we do remote working from day one, we will attract the right talent.”

Many thanks to the insights from Max Soyref, Associate Director of Blockchain at KPMG; Michel Dinh, Chief Technology Officer at Fusang Group; and Xiao Shiyuan, Chief Scientist at Shanghai Dianrong Information Technology.

PAGE’S ADVICE FOR HIRING IN BLOCKCHAIN



NIC CHAMBERS

*Regional Director,
Michael Page Malaysia*

Developing in-house blockchain talent requires time. However, it provides a far stronger foundation for sustainable long-term growth and increased retention. Partnerships with educational institutions will also become ever more important.



MURRAY ROBERTSON

*Associate Director,
Michael Page Philippines*

Look for high-potential professionals from the finance, banking, consulting and other finance-led industries, as well as engineering and data analytics, who are able to learn. Also, adapt the recruitment process to better identify potential rather than previous experience.



JAMES FRANKLIN

*Manager,
Michael Page Australia*

Businesses wishing to leverage blockchain will need to consider that local professionals may have limited exposure. Experienced developers with demonstrable experience of being a polyglot and having an agnostic approach will be most suitable and valued.

About Michael Page Technology

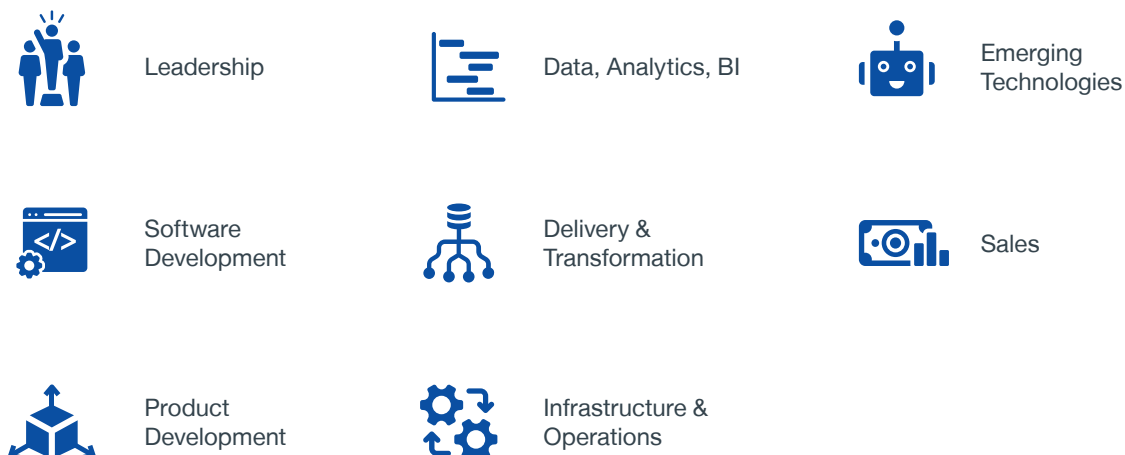
Michael Page understands the complexity and sophistication of hiring technology professionals. Our service combines the expertise of a specialist technology recruitment firm with the resources, reliability and professionalism of a global recruitment firm.



Candidate assessment tool

Developed in partnership with IKM, our candidate assessment tool identifies and analyses the technical competencies of tech candidates across a variety of skill sets. This allows hiring managers to make better, more informed hiring decisions, leaving no room for guesswork.

We recruit for all areas of Technology



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PageGroup is a leading international specialist recruitment group with a market capitalisation in excess of GBP 1 billion. We are listed on the London Stock Exchange as a FTSE 250 company and currently employ over 7,700 staff with 140 office locations in 36 countries. We are organically grown and each PageGroup office has been established by our own employees and conforms to the best practices and values common to our existing business.

We have the most extensive and accurate candidate database in Asia Pacific, and a global search capability that is unparalleled. Our consultants are discipline specialists who possess true subject matter expertise. We promote a team-based environment and encourage consultants to focus on long term business relationships rather than one off commissions.

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