



# THE INSIDE STORY OF DIGITAL TECHNOLOGY IN CHINA

Market sector  
intelligence report

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While the spotlight this year may have been on China's [disrupted supply chain market](#), the explosive growth of the country's digital tech sector has steadily continued on its path to world dominance. Consistent [government support](#) and a [booming tech ecosystem](#) has led to China becoming a leader in technologies and platforms such as e-commerce, cloud, data science, and particularly artificial intelligence. Both public and private investments in these spaces are expected to stay strong, while a softening economy has brought digital transformation to the forefront as companies look to change their strategy to focus on operational transformation and generating efficiencies. For the digital tech job market, this means a sustained, albeit slightly slower growth in hiring, while for companies, this has resulted in renewed efforts to improve employer branding and focus on digitalisation.

## Labour market overview: A period of unparalleled development in AI & digital transformation

Beginning in 2013 and up until the first quarter of this year, 60 per cent of all funds raised globally for AI projects went to those in China, making it the hottest sector to attract financing, according to a report by Tsinghua University in July. Last year, Chinese companies accounted for [70 per cent of the US\\$39.5 billion raised worldwide](#) for AI investments, fitting in with the government's [vision of becoming](#) the world leader in AI technology by 2030. "China is no longer the 'world's factory' like before, but a leading innovator in technology," says Andy Wang, Team Manager for Hays China. "Beijing and Shanghai are two major cities that have made tech innovation a priority, and have been applying new technologies like e-commerce, data, cloud and AI in everything from living to studying to working." The extent of this is perhaps best illustrated by the [recent story](#) of how an AI programme helped identify and prevent the potential suicide of a student in China.

In addition to this, China has become a hotbed for tech start-ups, leading to a surge in demand for technical candidates like engineers. "This has led to a skill shortage in the market," explains Fred Zhu, Business Director for Hays China "But over the last 6 months, we have observed a slight slowdown in hiring, partly due to the ongoing US-China trade war as well as a slowing economy. As a result, many companies and traditional industries are struggling to maintain the same revenue growth as previous years; leading them to look at digital tech or digital transformation to drive their profits and connect with their customers."



The consistent focus on technological progress contributed to an extremely job rich and candidate short market that has only recently begun to improve. "MNCs used to invest heavily into their tech centres in China but are now looking at other locations to base their tech teams. Similarly, companies were previously hiring in excess and offering lucrative packages during the internet industry boom a few years ago. But many have realised that this is not a sustainable model," says Fred. However, the market remains firmly in the favour of candidates, who companies are now trying to attract through elements like work-life balance, Corporate Social Responsibility (CSR) and innovative project, rather than unsustainable 30 per cent hikes in salary.

## Skills in demand: AI engineering, software development, digital transformation & cyber security

Unsurprisingly, AI talent is the most in demand in China, particularly in Shanghai and Beijing. Of these, mid-senior level roles comprise the majority, with most being related to engineering. This includes algorithm engineers stationed in AI centres, as well as engineers in machine learning, data mining, natural language processing (NLP) and R&D. "The ideal candidate for such roles would have at least 3-5 years of experience and solid technical skills. A bachelor's degree in computer science from a top university is a must, along with experience gained from working in high tech companies. Even better would be experience in a start-up environment as employers prefer candidates who are resilient and open minded," says Andy.

For senior candidates in the AI space, hands-on tech skills are a fundamental requirement but 'zero to one' knowledge, or experience in building a business from scratch, has become the most sought after. These candidates can expect to receive premium packages, but as Andy explains, "Money is not key at this moment – the company's funding team, investors, product and business model is what candidates are considering."

In other parts of China, there is still a significant focus on software engineering, including coding and developing programs and mobile apps.



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For popular junior-mid level roles like software engineers, mobile app developers, QA/testing roles and data analysts, more employers are increasingly seeking good English communication skills alongside sound technical qualifications, says Fred. “A lot of domestic companies are branching out internationally and MNCs are taking more direction from the western countries too – so English has become a big requirement.” Another interesting development is the emphases on ‘culture fit’ when hiring, meaning that while most companies still put candidates through rigorous technical interviews, they are now including meeting a variety of team members as another form of evaluation.



While the most in-demand senior roles across China include CTOs and data scientists, there has been a rising demand for a new type of digital leadership role says Fred. “Commonly called ‘digital transformation director’ or ‘digital director’, employees in this role are tasked with helping switch a business from traditional methods to new digital or innovative ways of working.” Such candidates can expect top-of-line packages, as this process was previously tasked to consulting companies. “But right now, the big MNCs are moving away from engaging consultants to hire for themselves – both as a cost saving measure and a way to drive continuous transformation in their business,” says Fred.

Security – be it cyber security or information security, is a function that underlies all developments in digital tech. Consequently, there has been steady hiring growth and increasing salaries in this space, particularly within mid-senior levels.

## **Employers drive better branding; candidates with personal projects are preferred**

Considering the candidate short nature of the current digital tech market in China, it has become imperative for employers to cultivate a brand that will attract excellent candidates. This has led to more companies investing in CSR programs, as well as marketing on LinkedIn and other platforms to display their culture, employees, and emphasize their actual working environments. As Fred explains, “Last year saw a number of Chinese companies receive flack for their culture of ‘9-9-6’ or working 9am-9pm 6 days a week. A lot of companies are trying to move away from this and show that they care about their employees.” In fact, top tier tech companies in China are being likened to US-tech giants like Google or Uber, says Andy, “They do everything to attract and retain their staff, from investing in marketing and branding for recruiting to providing employee benefits like mental health care.”

For candidates looking to receive the best offers on the market, English skills would certainly help set them apart, as would a personal project. “It is quite important for engineers to have their own personal project and upload it on a platform like Github for potential employers to see. During interview stages, many employers want to see how motivated and passionate a candidate is about the industry and such pet projects are expected of any good software engineer.”

Candidates in the digital tech space looking to further future-proof their careers could look into upskilling in other emerging technologies such as IoT, blockchain and RPA (robotic process automation). With such technologies continuously changing and shaping the world we live in, the possibility of new roles being created is endless. With the government and global investors on its side, China’s digital tech sector is set to lead the world into the future.

If you would like to discuss this report in more depth or you wish to discuss your job search or recruitment needs, please email

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# ABOUT HAYS IN ASIA

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We continue to strengthen our position in Asia operating in six markets across the region from 12 offices. Our headcount continues to grow as we aim to help substantially more companies achieve their goals and support more people to find the right jobs to transform their lives.

We are accredited with the world-leading ISO 9001:2015 certification in all our operational markets in Asia including Mainland China, Hong Kong, Japan, Malaysia and Singapore.

Our extensive candidate database allows our consultants to search millions of candidates globally using elastic search technology to find the best people in the fastest timeframe. In addition, our exciting collaboration with LinkedIn® provides real-time data on the active candidate market, behavioural trend analysis for future movers and an additional talent pool of millions of potential candidates. We are proud to be the number one most followed recruitment agency on LinkedIn with 3.0+ million followers.

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People placed in permanent jobs each year

## 1,000+

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## 700+

Employees in Asia

## 12

Offices across the region

## 12

Years of experience



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