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China is winning the AI talent race

Its lead over the West is only set to widen

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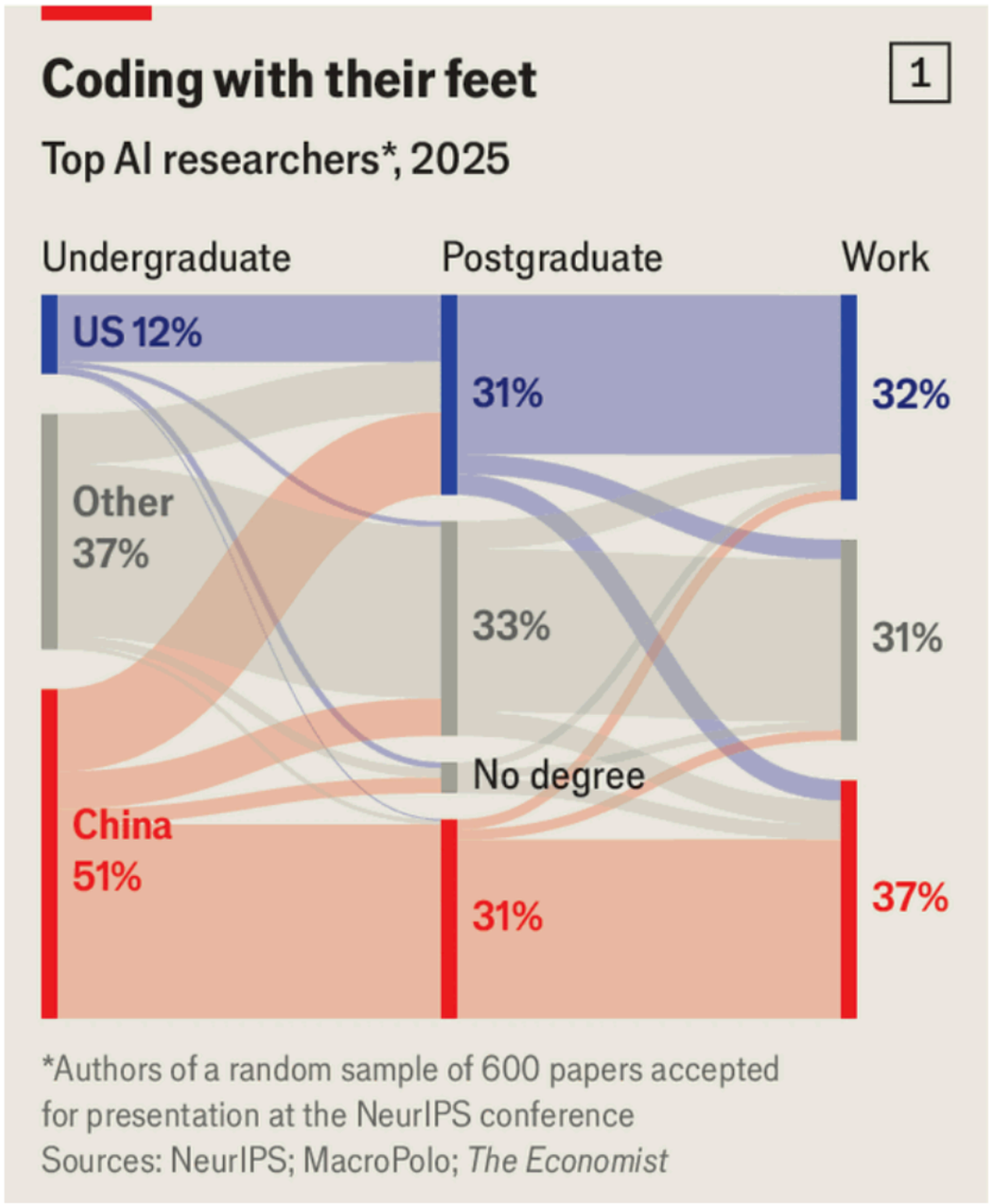
"IS IT POSSIBLE that the United States falls behind China?" Jensen Huang, the boss of Nvidia, asked himself during a question-and-answer session about artificial intelli-

gence late last year. “The answer is absolutely yes.” That may seem surprising—for much of the past decade America has been comfortably ahead in the AI race, home to the most advanced companies producing frontier models. Its engineers have access to deep pools of capital as well as a regular supply of Nvidia’s cutting-edge chips. But Mr Huang’s concern related to an equally important ingredient of innovation: human talent.

Until recently, most leading AI research was produced by experts based in the West. That is changing. In 2025, for the first time, more studies presented at the world’s top AI conference had lead authors based in China than in either America or Europe. This is not a blip. China is producing more clever young AI researchers than its rivals, and more of them are staying at home than ever before. At the same time, Chinese-born researchers who would once have built careers abroad are returning. China has taken the lead in AI talent and is continuing to extend it.

To better understand the flow of AI talent, The Economist tracked the education histories of researchers who presented papers at the December 2025 edition of the Conference on Neural Information Processing Systems (NeurIPS), the world’s largest and most prestigious AI gathering. More than 21,000 papers were submitted, of which roughly a quarter were accepted. Using a mixture of AI and manual search, we randomly sampled the authors of 600 papers (a cohort of almost 4,000 researchers) and identified their educational backgrounds. The method replicates one used by MacroPolo, a now-shuttered think-tank, on NeurIPS authors from 2019 and 2022.



Of the AI researchers who presented at NeurIPS 2025, 51% began their careers in China. In 2019, just 29% did (see chart 1). Over the same period, the share who started out in America fell from roughly 20% to 12%. Nine of the top ten institutions where authors from the 2025 conference earned their undergraduate degrees were in China. Graduates of Tsinghua University alone accounted for 4% of those researchers. MIT, the leading American institution, produced 1%.

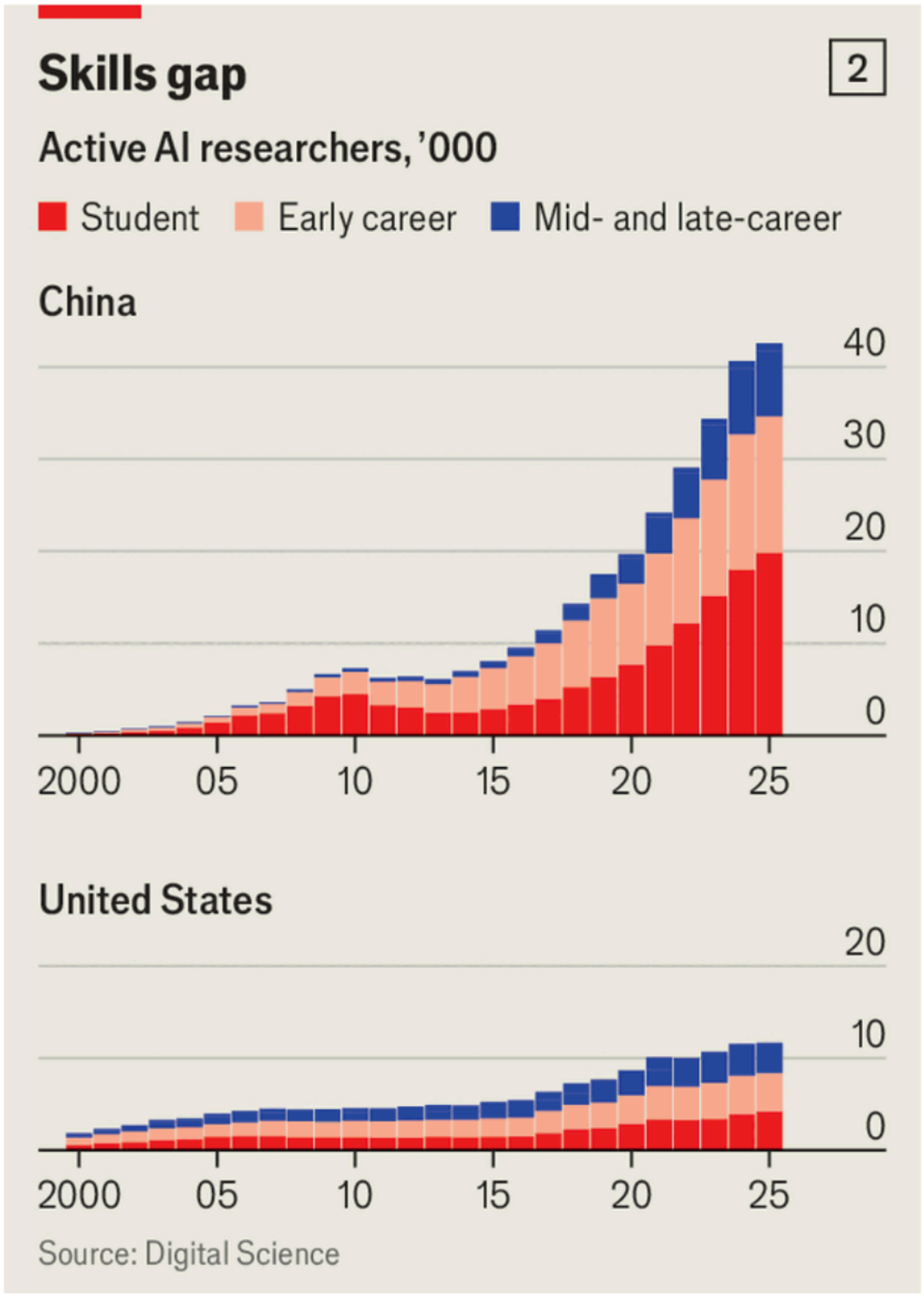
The analysis also shows the extent to which America's AI efforts rely on Chinese-born researchers. Among authors affiliated with American institutions, roughly 35% have a Chinese undergraduate degree (as many as have an American one).

That being said, NeurIPS may not be entirely representative of the field. Chinese researchers might feel stronger incentives to present at the conference: to win promotions at academic institutions, for example, scientists often need top conference papers on their CV. What's more, China's culture of open-source models may encourage its

authors to publish in academic forums, whereas America's leading talent is increasingly concentrated in secretive frontier labs.

There are other measures by which the importance of Chinese researchers to America can be gauged. When Meta, a tech company, announced the researchers staffing its new "superintelligence lab" in June, a leaked list revealed that half were described as being from China. The Economist's analysis of 483 contributors to OpenAI's GPT-5 (which includes AI researchers as well as marketing, design and leadership staff) found 15% had at least one degree from a Chinese institution.

China is increasingly holding on to its AI talent. According to Digital Science, a data firm, China now has more active AI researchers than America, Britain and Europe combined—though it still trails the West per head of population. What's more, China's cohort skews younger: 47% are students, compared with about 30% in the West. The country also prioritises education in science, technology, engineering and maths (STEM): around two-fifths of Chinese university students study STEM subjects, roughly double America's share.



Not all of these graduates will produce frontier innovations, but scale matters. A large pool of AI-savvy researchers increases the chance of breakthroughs and means new technologies spread faster. "China is creating this high-quality, highly trained workforce who are AI-sensitive," says Daniel Hook, the boss of Digital Science (see chart 2). "That's just going to mean so many companies coming out of China."

More and more Chinese boffins are choosing to stay in the country. In 2019 roughly a third of NeurIPS authors who completed their undergraduate degrees in China remained there. By 2022 that share had risen to 58%; in 2025 it reached 68%. Some of the country's best innovations have come from home-grown talent—none of the core contributors to DeepSeek R1, a Chinese model that stunned rivals when it was released in January 2025, held degrees from outside China.

These changes reflect both pull and push. Ever more Chinese universities are ranked among the best in the world. At the same time, initiatives to lure talented researchers back to China, such as the Qiming Plan, offer salaries of more than 700,000 yuan ($100,000), generous research grants and help with housing.

Meanwhile, America has become a less attractive destination. Funding cuts and visa uncertainty have unsettled would-be applicants, as has increasing suspicion of their loyalties. Last year Purdue University rescinded offers to more than 100 graduate students, most of them Chinese, after being asked by lawmakers to document researchers' ties to institutions in China. At American AI meetings some Chinese researchers feel the need to clarify they are not corporate spies.

More are therefore heading home. In 2019 just 12% of Chinese NeurIPS researchers who had earned graduate degrees abroad had returned to China. By 2025 that share had more than doubled to 28%.

The Economist spoke with Chinese-born early-career researchers who have recently relocated back home from America, or have moved back and forth between the two countries. Some still consider America to have a stronger research environment or complain of fierce competition and long hours at China's fast-growing firms. Yet they said on balance a strong job market, interesting opportunities and proximity to family now outweigh those drawbacks.

America's appeal has not vanished. It still draws more international talent than anywhere else and most Chinese researchers who complete graduate degrees in America stay on to work. Following up on a sample of Chinese-born, America-based NeurIPS authors from the 2019 conference, 87% were still there in 2025. "Long-standing

institutions just don't disappear overnight," says Matt Sheehan, of the Carnegie Endowment for International Peace, who performed the research and worked on the original MacroPolo analysis.

But the numbers increasingly favour China. Using the authors of NeurIPS papers as a metric, around 37% of the world's top AI researchers now work in Chinese organisations, compared with 32% in American ones. If the trend of the past decade continues, by 2028 top China-based researchers could outnumber America-based ones by two to one. According to Mr Huang, for a country to lead in AI "Winning developers is everything." The battle for talent looks increasingly one-sided. ■

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