

# How China's new AI model DeepSeek is threatening U.S. dominance

A lab out of China has ignited panic in Silicon Valley after releasing impressive AI models more cheaply and with less-powerful chips than U.S. giants.

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A little-known artificial intelligence lab out of China has ignited panic throughout Silicon Valley after releasing AI models that can outperform America's best despite being built more cheaply and with less-powerful chips.

DeepSeek, as the lab is called, unveiled a free, open-source large language model in late December that it [says](#) took only two months and less than \$6 million to

build, using reduced-capability chips from [Nvidia](#) called H800s.

The new developments have raised alarms on whether America's global lead in artificial intelligence is shrinking and called into question Big Tech's massive spend on building AI models and data centers.

In a set of third-party benchmark tests, DeepSeek's model outperformed [Meta's](#) Llama 3.1, OpenAI's GPT-4o and Anthropic's Claude Sonnet 3.5 in accuracy ranging from complex problem-solving to math and coding.

DeepSeek on Monday released R1, a reasoning model that also [outperformed](#) OpenAI's latest o1 in many of those third-party tests.

"To see the DeepSeek new model, it's super impressive in terms of both how they have really effectively done an open-source model that does this inference-time compute, and is super-compute efficient," [Microsoft](#) CEO [Satya Nadella](#) said at the World Economic Forum in Davos, Switzerland, on Wednesday. "We

should take the developments out of China very, very seriously.”

DeepSeek also had to navigate the strict semiconductor [restrictions](#) that the U.S. government has imposed on China, cutting the country off from access to the most powerful chips, like Nvidia's H100s. The latest advancements suggest that DeepSeek either found a way to work around the rules, or that the export controls were not the chokehold Washington intended.

“They can take a really good, big model and use a process called distillation,” said Chetan Puttagunta, general partner at Benchmark. “Basically you use a very large model to help your small model get smart at the thing you want it to get smart at. That's actually very cost-efficient.”

Little is known about the lab and its founder, Liang WenFeng. DeepSeek was born of a Chinese hedge fund called High-Flyer Quant that manages about \$8 billion in assets, according to [media reports](#).

But DeepSeek isn't the only Chinese company making inroads.

Leading AI researcher Kai-Fu Lee has [said](#) his startup 01.ai was trained using only \$3 million. TikTok parent company ByteDance on Wednesday [released](#) an update to its model that claims to outperform OpenAI's o1 in a key benchmark test.

"Necessity is the mother of invention," said Perplexity CEO Aravind Srinivas. "Because they had to figure out work-arounds, they actually ended up building something a lot more efficient."

[Watch this video](#) to learn more.