China's Baidu scores artificial-intelligence coup, hires Andrew Ng to run Silicon Valley lab

May 22 2014

Opening a new front in Silicon Valley's latest arms race, the Chinese Internet company Baidu said Friday that it has hired former Google and longtime Stanford researcher Andrew Ng as chief scientist to run its artificial intelligence research labs in Sunnyvale and Beijing.

Ng, who is also co-founder of the online education company Coursera, is a highly regarded computer scientist who worked on artificial intelligence projects at Google's secretive X division, where he helped create a "neural network" of computers that famously taught itself to recognize images of cats by analyzing thousands of YouTube videos.

The hire is a significant coup for Baidu, which operates China's leading Internet search engine. The company has not indicated any plans to enter the U.S. market, but it has followed the lead of other major foreign tech firms by opening a research office in Silicon Valley - where it hopes to tap the region's talent pool and gain more prominence within the tech industry.

Ng's move is another sign that leading Internet companies are pouring resources into artificial intelligence research, which they believe will help them deliver more personalized online services and advertising. As this newspaper reported last month, Facebook, Google and other top companies have been vying to acquire top talent in the field by buying smaller companies and hiring leading university researchers.

"Andrew is the ideal individual to lead our research efforts as we enter an era where AI plays an increasingly pronounced role," said Robin Li, the chief executive of Baidu, in a prepared statement that hailed Ng as "a true visionary and key contributor to the field of artificial intelligence."

While artificial intelligence is a broad term, it generally refers to sophisticated computer systems that can analyze vast amounts of data and learn to identify items or even anticipate outcomes. Ng is known for pioneering work in a field known as "deep learning," in which massive computer networks solve complex problems without being told directly what to do at every step of the process.

Google has used artificial intelligence and deep learning to build algorithms that can identify unlabeled photos, recognize voice commands and understand conversational speech, among other things. Facebook has said it hopes to use artificial intelligence for similar purposes. Baidu said it's using the technology for image searches, natural language processing and "advertising matching."

Internet companies are racing to develop new services that act more like personal assistants - answering complex questions and anticipating users' needs or interests - because they have run out of ways to improve on the traditional method of typing keywords into a search box, said analyst Whit Andrews at the Gartner research firm. "Search vendors want to be your robotic guardian angel," he added.

Baidu established a "Deep Learning Institute" last year, with a small office in Cupertino. With the hiring of Ng, the company said it plans to invest $300 million to expand the lab, with up to 200 employees in larger quarters at the Moffett Towers office complex in Sunnyvale.

Ng is on leave from Stanford and is stepping away from daily duties at Coursera, where he will continue to serve as chairman, a spokesman

said.

Microsoft and IBM also have [artificial intelligence](#) programs, while a host of smaller startups are working on mobile apps and services that use similar technology. At the TiE technology conference in Santa Clara on Friday, IBM announced partnerships with several startups that are building apps using the cognitive computing system it calls "Watson."

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