



# Chinese Universities Begin Recruiting Undergraduates for AI Programs

**OE Watch Commentary:** Earlier this year China's Ministry of Education released a plan to recruit more incoming undergraduate students into engineering and programming majors focused on Artificial Intelligence (AI). The plan encourages colleges and universities to explore engineering courses that integrate AI with other subjects, including both traditional science fields such as computer science, mathematics and statistics with other fields, including law and sociology. China's traditional top universities such as Qinghua and Peking University have established AI programs, but there is a major effort to expand the availability of AI courses across the country. By 2020, 100 of these majors involving AI will be set up, along with 50 AI-focused colleges and research centers as reported by the accompanying excerpted articles from *Caijing* and *Xinhua*.

Automation and Intelligent Manufacturing are two keystones of "Made in China 2025," China's plan to leapfrog its economy from export-focused light manufacturing to higher-value advanced manufacturing goods. Creating a workforce with the required skills is an important corollary to state backing of laboratories and expanded research budgets. A separate plan, the "New Generation Artificial Intelligence Development Plan" released in 2017, lays out milestones for AI and cites the technology as a "new economic growth point" for China. The plan forecasts that by 2025 AI will provide an economic bonanza in intelligent agriculture, national defense construction, and other fields, and the scale of AI's core industry will be more than 400 billion RMB (roughly \$62 billion USD). Related industries are predicted to exceed 5 trillion RMB (more than \$770 billion USD).

While directly recruiting students into AI-focused courses will help, it is doubtful that the scale of such initial steps will be able to meet the demand from China's rapidly expanding AI sector, or that a sufficiently large proportion of China's labor force will be able to gain the skills to make them competitive in the new economy. The 2017 plan for example, laments that "cutting-edge talent for AI is far from meeting demand." China's "whole-of-government" approach to promoting innovation has had some notable successes, but these limiting factors should encourage observers to be cautious when calculating China's global competitiveness in AI. **End OE Watch Commentary (Wood)**

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**Source:** "China rides waves of artificial intelligence," *Xinhua*, 18 May 2018. [http://www.xinhuanet.com/english/2018-05/18/c\\_137188776.htm](http://www.xinhuanet.com/english/2018-05/18/c_137188776.htm)

*Riding the global waves of artificial intelligence (AI), China aims to improve the productivity and inject new momentum into its economy by encouraging more players to tap the fledgling industry.*

*"China should seize opportunities to boost innovation in deep learning, smart algorithms and chips, and modernize industries with AI technologies," Lin Nianxiu, deputy head of the National Development and Reform Commission (NDRC) (China's top economic planning agency), told a room of entrepreneurs, researchers and policy-makers at the congress, which was held from May 16 to 18.*

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*China's AI industry output last year was 18 billion yuan (roughly \$2.85 billion USD) and value of related industries reached 220 billion yuan, according to the Ministry of Industry and Information Technology.*

*According to a survey of 408 intelligent companies by the Chinese Institute of New Generation Artificial Intelligence Development Strategies (CINGAIDS), "The development of intelligent technologies is not only the endogenous driving force for China's economic development, but contributes to the prosperity of the world as well."*

**Source:** "国内高校首次规模招收AI专业本科生 (Universities Begin Recruiting AI Undergraduate Students For the First Time)," *Caijing*, 19 June 2018. <http://industry.caijing.com.cn/20180619/4472285.shtml>

*More than 70 domestic universities and colleges have set up artificial intelligence-related majors, including Xidian University, Nanjing University, Chongqing University of Posts and Telecommunications, and for the first time this year, have launched undergraduate direct enrollment [for these programs].*

*Many colleges and universities incorporate computers and artificial intelligence into the professional categories of self-enrollment and comprehensive evaluation. For example, Nanjing University will recruit 10 undergraduate freshmen of artificial intelligence this year through independent enrollment. Nanjing University's self-enrollment of computer science disciplines generally requires candidates to win national finals of three or more awards in any discipline of the Mathematics, Physics, Chemistry, Biology, and Information Technology Olympiad.*

*In addition to these colleges and universities that have already started recruiting, more colleges and universities are preparing to set up artificial intelligence-focused courses.*

*Tsinghua University has established a leading group for cross-disciplinary research, and has issued a number of documents and degree assessment systems that support interdisciplinary cross-smart research. The Institute of Artificial Intelligence at Nanjing University has established two professional orientations: machine learning, data mining, and intelligent systems and applications. By adopting a new curriculum setting and training model, pattern recognition and computer vision are set in core courses such as machine learning, and they are utilized.*

*Some teachers suggested that because of the many research directions of artificial intelligence, many colleges and universities generally only make clear the research direction of artificial intelligence at the graduate student stage, and they have high requirements for learning. Therefore, laying a solid foundation is very important.*