

BUSINESS

PATH TO MODERNIZATION

SenseTime achieving more quantum AI leaps

By WANG ZHUOQIONG
in Shanghai

SenseTime Group Inc, a leading Shanghai-based artificial intelligence software company, is doubling down on its development efforts on SenseCore, its AI infrastructure, to drive innovation and implementation of AI tasks in enterprises.

SenseCore integrates AI model development, generation and application, empowering a new paradigm in AI production characterized by high efficiency, low cost and scalability. It has developed nationwide network-unified scheduling and expanded new computing nodes in cities such as Shanghai; Guangdong province's Shenzhen and Guangzhou; Fujian province; Jinan, Shandong province; and Chongqing, said the company.

Currently, the total computing power of SenseCore exceeds 12,000 petaflops, which are used to measure the performance of a processor's floating point unit (FPU).

SenseCore represents the most advanced domestic infrastructure for training large-scale models, with maximum connectivity of 10,000 GPU (graphics processing unit) clusters with a sustained acceleration efficiency of 90 percent.

SenseTime has also optimized training stability, demonstrating the capability of uninterrupted stable training for over 30 days, with a recovery time of only 30 minutes in case of interruptions.

In terms of large-scale model inference services, SenseTime has improved its optimization, resulting in major progress in terms of cost-effectiveness over the past year.

SenseTime announced on Wednesday the launch of SenseNova's Cantonese large model, including the SenseChat (Cantonese) Large Language Model and Sense-

Chat (Cantonese) Multimodal Large Model. It was also announced that the application programming interface (API) was available to enterprise users. Meanwhile, SenseChat (Cantonese) — including the web version and mobile app — was introduced for the first time as a free service to consumers.

The major advancements in the new version focus on knowledge, mathematics, reasoning and coding capabilities.

Qi Qi, head of LLM (large language model) solutions at SenseTime, said SenseNova currently offers various large-scale model capabilities, including natural language processing, image generation, automated data annotation and custom model training, enabling the application of LLM AI technology across industries at low cost and high efficiency.

Moreover, the company's Code Racoon inference integrated machine, a stand-alone LLM product tailored for software development, provides software development and hardware integration solutions that enhance research and development efficiency while ensuring secure operations, said Qi.

SenseTime also launched the edge-side full-stack LLM product matrix, which includes the SenseTime Edge-side LLM for terminal devices, and the SenseTime Integrated LLM edge device that can be applied to fields such as finance, coding, healthcare and government services.

In the past year, SenseTime has focused on three core business segments: generative AI, traditional AI and smart autos. The company has placed a strong focus on developing the generative AI business while also ensuring that the traditional AI and the smart auto business segments remain competitive. Its 2023 generative AI business achieved revenue of 1.2 billion yuan (\$165.7 million).

Joy of harvest



Long Jiarong (right), an employee of State Grid Wenzhou Electric Power Co, visits the Zhangge village cauliflower cultivation base in Wanquan town, Zhejiang province, to enquire about farmers' increasing power needs. CHEN SHANSHAN / FOR CHINA DAILY

Amex GBT sanguine about China market prospects

By LIU ZHIHUA
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American Express Global Business Travel, or Amex GBT, a software and services company for travel, expense, and meetings and events, is bullish about its prospects in China and will step up investments in the country, a senior executive said.

Tessa Mowat, vice-president and head of Global Travel Partner Network and Joint Ventures of Amex GBT, said China's high-level opening-up as well as its huge market potential make the country strategically important for multinational companies, which garner great business opportunities for the company.

"We're really excited to see that the renewed opening-up of China and business travel, particularly for multinational and global customers, certainly kicked off at the beginning of last year with acceleration into the second half of 2023," Mowat said.

"China is a very important market for many enterprises across the globe, and we can see that there are a lot of favorable policies and overall positive background for this industry ... We're very positive about the



Tessa Mowat

Mowat said China offers travel management great market potential.

In big cities like Beijing, Shanghai and Shenzhen in Guangdong province, there is already a relatively high level of adoption of travel management services. Meanwhile, smaller cities have not seen enterprises managing travel in a modernized way, which presents very good opportunities, she said.

In addition, as the Chinese economy experienced rapid development in the past decades, people and enterprises' need for travel management has also evolved to focus more on services' quality rather than prices, she added.

"We believe that travel is a force for good and that it is essential for economic, social and environmental progress. Our global strategy, China included, is to make this a reality by

outlook ahead and anticipate international (travel) to really gain some more pace by the end of this year and accelerate the growth as well."

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"We believe that travel is a force for good and that it is essential for economic, social and environmental progress. Our global strategy, China included, is to make this a reality by

offering our customers unbeatable choices, pricing and a caring and seamless experience," she said.

Amex GBT has formed three joint venture companies in Beijing, Shanghai and Guangzhou since 2002, together with China International Travel Services, or CITS, which is now known as China Travel Group.

With a presence in 140 countries, Amex GBT's full-year 2023 transactions were up 19 percent year-on-year, while Asia-Pacific growth was significantly higher at 29 percent, benefiting from a delayed recovery in the region.

To further tap the potential of the China market, Mowat said the company will continue to invest in digital technologies and building online business travel platforms.

In the past three years, the JVs of Amex GBT and CITS have invested heavily to build a first-of-its-kind digital corporate payment solution to address heightened customer needs for compliance, simplicity and efficiency in travel scenarios besides air travel.

The goal is to ensure that both travel bookers and travelers can book flight, hotel, train and car ser-

vices at the best prices, while making travel a simple experience.

Companies are empowered by aggregated payment solutions and periodic consolidated billing, which is seamlessly integrated with their existing business travel management and IT systems to effectively cut costs and optimize travel expenditures.

"We invest heavily in the digital experience, making sure we have the right digital technology to ensure a smooth process from booking, on the road and then post-trip," said the executive.

"In China, we're very focused on having the right tools and technologies to drive a seamless experience for travel bookers, and really focusing on technical development and the application of the technologies."

Apart from multinational corporation clients, the growing number of Chinese enterprises going global also provides new business opportunities for Amex GBT in China, Mowat said.

"China is a very important market. What we do is not only serve foreign enterprises doing business in China, but also Chinese enterprises doing business in overseas markets," she said.

Kevin Tan, vice-president of Amex



An employee of JAKA Robotics Co Ltd monitors production at a facility in Shanghai. PROVIDED TO CHINA DAILY

Humanoid robots play more roles

People-machine interactions gaining greater ground as smart tech evolves

By WANG ZHUOQIONG
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These days, robots can help you make a latte sporting a perfect creamy tulip pattern.

With six-dimensional force control and high-precision algorithms, they now boast increasingly impressive self-learning and decisionmaking capabilities.

Chang Li, vice-president of JAKA Robotics Co Ltd, said that the company has developed collaborative robots possessing stronger self-learning abilities, self-decisionmaking capabilities and human-machine interactions.

"These intrinsic technological advances allow robot control through drag-and-drop and point teaching in practical scenarios, lowering the usage threshold and truly freeing frontline workers' hands to engage in more valuable and creative work," said Chang.

JAKA Robotics, which specializes in the new generation of collaborative robots and smart factories, has expanded its business into multiple industrial and service scenarios.

Founded in 2014, JAKA Robotics transforms robots from specialized equipment into easy-to-use tools, emphasizing flexibility and intelligent collaboration. The company has pioneered innovations in various applications, including drive control integration, integral joints, free-drive programming and wireless connectivity.

JAKA Robotics offers a modular, self-developed platform, achieving rapid product iteration through

hardware and software technology research and development for perception and decision-making with its body algorithms, application algorithms and Over-The-Air (OTA) cloud system.

JAKA's production base is located in Changzhou, Jiangsu province, thus leveraging the industry cluster advantages of the Yangtze River Delta region.

The company has achieved self-research and production of the core parts of the robot, ensuring stringent quality control and testing from parts production to whole-machine testing.

"This approach realizes 'robots making robots', empowering factories across various industries to upgrade intelligently. Innovation is the genome and foundation of JAKA Robotics," Chang added.

Currently, the company has developed a core technology system encompassing intelligent modular joints, high-quality motion control, new teaching, rapid deployment, human-machine intelligent integration, safety collaboration, intelligent production lines and integration.

From everyday thermos cups and the first national AI cafeteria to auto parts manufacturing and the cleaning of the "Sky Eye" radio telescope, JAKA Robotics has driven innovation over the past decade, converting technological achievements into market applications.

Press-fit technology is widely applied in multiple automotive applications. For example, automotive pin processing, which traditionally relied on manual labor, had faced issues such as low production efficiency,

inconsistent processing levels and long on-site modifications.

JAKA's fully automated pin processing workstation integrates components like motors, drives, controls, reducers and dual encoders into the robot body, achieving miniaturization and enabling installation in small spaces.

The company has worked with Toyota Group, deploying hundreds of JAKA collaborative robots on multiple production lines in Toyota's auto parts manufacturing plants. These robots perform tasks such as three-pin grinding, inner star wheel grinding, small part processing, loading and unloading, screw locking, inspections and assembly. Additionally, they have launched an automatic charging application for new energy vehicles, helping global brand Lotus achieve intelligent charging.

JAKA Robotics has invested in the business to serve industrial applications in automotive, electronics, semiconductors and new energy sectors, as well as engaging in direct consumer service work in various new commercial consumer fields.

The company is also looking to expand business overseas in Japan, Southeast Asia and Europe.

To enhance innovation, JAKA Robotics promotes integration of production, education and research. The company has formed cooperative relationships with many universities, including Shanghai Jiao Tong University, focusing on both hardware and software research in robotics.

Moreover, the company founded JAKA Academy, creating a dual-teacher classroom that connects enterprises and schools. This initiative provides innovative practice platforms for enterprises and higher education institutions. Currently, R&D personnel account for over 25

percent of JAKA Robotics' employees.

Liang Rui, president of Shanghai Step Robotics Co Ltd, said with the quality and quantity of all the suppliers from the Yangtze River Delta region, the localization process is accelerating and China's industrial robot market is entering a golden era.

"This Yangtze River Delta region is the most concentrated area for the industrial robot industry in China, with a progressively complete industry chain," Liang said.

He added that last year, the overall market growth for industrial robots in China was flat, but domestically produced robots have seen an average growth of around 25 percent over the past two years.

"The gap between medium and small-sized robotics with international peers is shrinking. In the next three to five years, large-sized robotics will be the key field to grow for domestic players," said Liang.

Both JAKA and Step are vivid examples of the emerging power in the field of the humanoid robot sector, incubated in Shanghai. The city is actively developing relevant policies to support breakthroughs in key technologies such as humanoid robot bodies, embodied intelligence models and more dexterous hands.

The goal is to deepen the application of humanoid robots in industrial manufacturing and service sectors, striving to achieve a scaled application demonstration of 1,000 units within three years, said the Shanghai Economic and Informationization Commission.

Additionally, Shanghai is accelerating the drive to realize the deployment of 10,000 intelligent robots in smart factories. By 2025, the target is for the density of robots in key industries to reach 500 units per 10,000 people.



Attendees gather at an event on business travel hosted by CITS-GBT in Beijing. PROVIDED TO CHINA DAILY

GBT, said that there is strong demand from enterprises for business travel in the post-COVID-19 era.

Although the operations of MNCs in China contribute to around 95 percent of Amex GBT's local revenues, a growing number of Chinese enterprises going global — for example, those in electric vehicles, healthcare and high-tech sectors — have been increasingly driving its growth in the country as well, said Tan, who is also general manager of CITS-American Express Global Business Travel.

According to the Mastercard Economics Institute, the global travel sector is breaking boundaries in

2024 as consumer spending on tourism remains robust and passenger traffic soars. For the Chinese mainland, air passenger traffic has fully normalized and even exceeded 2019 levels, benefiting local businesses.

Meanwhile, international tourist traffic leaving the Chinese mainland continues to recover and is now at 80.3 percent of 2019 levels.

Additional upside growth is expected in 2024, supported by visa exemptions in Asia-Pacific, as well as an increase in international flight capacity, benefiting destinations such as Singapore, Malaysia and Thailand, the report said.