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Baidu Named Development Partner on Intel Nervana Neural Network Processor for Training

BEIJING--(BUSINESS WIRE)-- **What's New:** Today at the Baidu Create AI developer conference in Beijing, Intel Corporate Vice President Naveen Rao announced that Baidu* is collaborating with Intel on development of the new Intel® Nervana™ Neural Network Processor for Training (NNP-T). [The collaboration](#) involves the hardware and software designs of the new custom accelerator with one purpose – training deep learning models at lightning speed.

“The next few years will see an explosion in the complexity of AI models and the need for massive deep learning compute at scale. Intel and Baidu are focusing their decade-long collaboration on building radical new hardware, co-designed with enabling software, that will evolve with this new reality – something we call ‘AI 2.0.’”

–Naveen Rao, Intel corporate vice president and general manager of the AI Products Group

Why It Matters: Artificial intelligence (AI) isn't a single workload; it's a pervasive capability that will enhance every application, whether it's running on a phone or in a massive data center. Phones, data centers and everything in between have different performance and power requirements, so one-size AI hardware doesn't fit all. Intel offers exceptional choice in AI hardware with enabling software, so customers can run complex AI applications where the data lives. The NNP-T is a new class of efficient deep learning system hardware designed to accelerate distributed training at scale. Close collaboration with Baidu helps ensure Intel development stays in lock-step with the latest customer demands on training hardware.

How Intel and Baidu Collaborate: Since 2016, Intel has been [optimizing Baidu's PaddlePaddle* deep learning framework](#) for Intel® Xeon® Scalable processors. Now, the companies give data scientists more hardware choice by optimizing the NNP-T for PaddlePaddle.

The impact of these AI solutions is enhanced with additional Intel technologies. For example, [Intel® Optane™ DC Persistent Memory](#) provides improved memory performance that allows Baidu to deliver personalized mobile content to millions of users through its Feed Stream* service and Baidu's AI recommendation engines for a more efficient customer experience.

Additionally, with data security critically important to users, Intel and Baidu are working together on [MesaTEE*](#), a memory-safe function-as-a-service (FaaS) computing framework based on the [Intel Software Guard Extensions \(SGX\)](#) technology.

More Context: [Artificial Intelligence at Intel](#) | [Beyond the CPU or GPU: Why Enterprise-Scale Artificial Intelligence Requires a More Holistic Approach](#) (Naveen Rao Editorial) | [Intel AI at Baidu Create: AI Camera, FPGA-based Acceleration and Xeon Scalable Optimizations for Deep Learning](#)

About Intel

Intel (NASDAQ: INTC), a leader in the semiconductor industry, is shaping the data-centric future with computing and communications technology that is the foundation of the world's innovations. The company's engineering expertise is helping address the world's greatest challenges as well as helping secure, power and connect billions of devices and the infrastructure of the smart, connected world – from the cloud to the network to the edge and everything in between. Find more information about Intel at newsroom.intel.com and intel.com.

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