Ambarella Launches Comprehensive Edge AI Developer Platform

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Cooper™ Developer Platform Provides Power Efficient Solution for Industrial, AIoT, Intelligent Video Analytics and Edge AI Computing Applications

SANTA CLARA, Calif., Jan. 10, 2024 (GLOBE NEWSWIRE) -- Ambarella, Inc. (NASDAQ: AMBA), an edge AI semiconductor company, today announced during CES the leading-edge Cooper™ Developer Platform. Cooper offers seamless integration of software, hardware, state-of-the-art fine-tuned AI models, and services that provide universal support for Ambarella’s entire portfolio of AI systems-on-chip (SoCs). This platform makes it easier than ever for customers by providing a flexible, modular and prepackaged suite of hardware and software development tools, comprising Cooper Metal, a collection of AI SoCs and board-level hardware solutions; and Cooper Foundry, a multi-layer software stack featuring Cooper Core, Cooper Foundation, Cooper Vision and Cooper UX.

View a short video about Cooper, here: www.ambarella.com/cooper

Cooper Metal is a hardware layer that includes power-efficient AI SoCs, Systems on Module (SoMs) and developer kits that come preloaded with Cooper Foundry.

The Cooper Foundry software stack includes:

- Cooper Core, which encompasses Linux-based OS, compilers and SDKs. Building on Ambarella’s existing comprehensive suite of development tools, Cooper Core also introduces a framework for seamless integration with widely-used open-source software tools.
- Cooper Foundation, which features the Model Garden—a collection of state-of-the-art, open-source, finely-tuned, pre-trained neural network models for rapid AI development.
- Cooper Vision, which offers essential building blocks for multi-modal sensor processing and fusion, including data from cameras, radars and LiDARs.
- Cooper UX, which provides a familiar Lychee-based user interface, enabling developers to effortlessly create production-ready AI applications. Cooper UX also streamlines debugging through Cooper Home, which automates the visualization and profiling of AI model performance on targeted SoCs. This capability is further supported by sample apps, which aid in building AI applications and analyzing their performance.

In addition, the Cooper Developer Platform’s unified set of tools facilitates the creation of multi-chip systems using any Ambarella AI SoC.
“Developers creating products based on the latest AI technologies are faced with the daunting challenge of integrating multiple software tools while deploying on diverse hardware platforms,” said Fermi Wang, President and CEO of Ambarella. “Our new unified, robust and scalable Cooper Developer Platform allows designers to easily take full advantage of our SoCs’ industry-leading AI performance per watt, via intuitive and comprehensive tools that abstract the hardware and enable them to focus on product innovation across multiple markets and applications.”

Many developers already possess expertise in using foundational open source software tools and libraries, such as TensorFlow, Docker, PyTorch, Yocto and Robotics Operating System v2 (ROS2). By integrating these familiar industry-standard tools within the Cooper Developer Platform, developers can readily leverage the substantial associated online communities, making their edge AI app development and deployments easier than ever.

On the hardware side, the Cooper Developer Platform will expand Ambarella’s ecosystem via a network of AI-acceleration PCIe card and SoM manufacturers, which are creating new offerings that will become part of Cooper Metal. To further speed customers’ time to market, Ambarella is also partnering with a growing list of design and manufacturing service providers, including e-Con Systems, VVDN, Quanta and more, all of which are participating in Ambarella’s CES exhibition.

The new Cooper Developer Platform is available now, and is being demonstrated at Ambarella’s invitation-only exhibition during CES in Las Vegas this week. For more information or to schedule a demo during the show, please contact your Ambarella representative or visit www.ambarella.com/cooper.

About Ambarella
Ambarella’s products are used in a wide variety of human vision and edge AI applications, including video security, advanced driver assistance systems (ADAS), electronic mirror, drive recorder, driver/cabin monitoring, autonomous driving and robotics applications. Ambarella’s low-power systems-on-chip (SoCs) offer high-resolution video compression, advanced image and radar processing, and powerful deep neural network processing to enable intelligent perception, fusion and planning. For more information, please visit www.ambarella.com.

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