Uber Selects NVIDIA Technology to Power Its Self-Driving Fleets

Uber’s AI Self-Driving Cars and Trucks Have Already Driven 2M+ Autonomous Miles, Completed Over 50,000 Rides

CES -- NVIDIA and Uber today announced that the ridesharing company has selected NVIDIA technology for the AI computing system in its fleet of self-driving vehicles.

Speaking at the opening press conference of CES 2018, NVIDIA founder and CEO Jensen Huang said that the collaboration utilizes NVIDIA technology for Uber Advanced Technologies Group’s fleets of self-driving cars and freight trucks, running AI algorithms that enable vehicles to perceive the world, predict what will happen next and quickly choose the best course of action, even in complex environments.

“The future of transportation will be transformed by mobility services. Convenient, affordable mobility-as-a-service will reshape cities and society, and help support the billion-person increase in the world’s population over the next decade,” said Huang. “Autonomous vehicles are the critical technology to making mobility services pervasive. We’re thrilled to be working with Uber to realize this vision.”

Uber began working on self-driving technology in early 2015, and launched the first city trials in Pittsburgh, in fall 2016, followed by a second pilot in Phoenix, starting in early 2017. Over this period, self-driving Ubers have completed more than 50,000 passenger trips and have logged over 2 million autonomous miles.

Uber’s use of NVIDIA’s technology reflects the reality that the computational requirements of self-driving vehicles are enormous. Self-driving cars and trucks must perceive the world through high-resolution, 360-degree surround cameras and lidars; localize the vehicle within centimeter accuracy; detect and track other vehicles and people; and plan a safe, comfortable path to the destination. All this processing must be done with multiple levels of redundancy to ensure the highest level of safety. The computing demands of driverless vehicles are easily 50 to 100 times more intensive than the most advanced cars today.

“Developing safe, reliable autonomous vehicles requires sophisticated AI software and a high-performance GPU computing engine in the vehicle,” said Eric Meyhofer, head of Uber Advanced Technologies Group. “NVIDIA is a key technology provider to Uber as we bring scalable self-driving cars and trucks to market.”

Uber began using NVIDIA GPU computing technology in its first test fleet of Volvo XC90 SUVs, and currently uses high-performance NVIDIA processors to run deep neural networks in both its self-driving ride-hailing cars and self-driving freight trucks. The development pace of the Uber fleet has accelerated dramatically, with the last million autonomous miles being driven in just 100 days.

About UBER
Uber was founded in 2009 to solve an important problem: how do you get a ride at the push of a button? More than 5 billion trips later, we’ve started tackling even greater challenges: making transportation safer with self-driving cars, delivering food quickly and affordably with Uber Eats, and reducing congestion in cities by getting more people into fewer cars.

About NVIDIA
NVIDIA’s (NASDAQ: NVDA) invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined modern computer graphics and revolutionized parallel computing. More recently, GPU deep learning ignited modern AI — the next era of computing — with the GPU acting as the brain of computers, robots and self-driving cars that can perceive and understand the world. More information at http://nvidianews.nvidia.com/.

Certain statements in this press release including, but not limited to, statements as to: the performance and abilities of NVIDIA’s technology being used by Uber in self-driving vehicles; AI revolutionizing the global transportation industry and its impact on the safety and experience of driving in the future; and the goals and impact of the NVIDIA and Uber collaboration are forward-looking statements that are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: global economic conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners’ products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems; as well as other factors detailed from time to time in the reports NVIDIA files with the Securities and Exchange Commission, or SEC, including its Form 10-Q for the fiscal period ended October 29, 2017. Copies of reports filed with the SEC are posted on the company’s website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

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