PONY AI Inc. Launches PonyWorld 2.0, a Self-Improving Physical AI Engine for Autonomous Driving

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- *New world model upgrade enables AI to diagnose its own weaknesses, guide targeted data collection, and support the next phase of large-scale L4 commercialization*

GUANGZHOU, China, April 10, 2026 -- Pony AI Inc. ("Pony.ai") (NASDAQ: PONY; HKEX: 2026), a global leader in the large-scale commercialization of autonomous driving technology, today announced the launch of PonyWorld 2.0, the latest upgrade to its proprietary world model and a major advancement in the core training system behind the company's autonomous driving stack.

PonyWorld 2.0's most important advance is its ability to diagnose its own weaknesses and guide targeted improvement. The upgrade brings three core capabilities: self-diagnosis, targeted data collection in scenarios where the model still falls short, and more efficient training focused on the hardest cases.

The launch comes as the autonomous driving industry enters a new commercial phase. The challenge is no longer just proving that driverless technology works. It is now about improving performance quickly and consistently enough to support broader deployment, stronger unit economics, and sustained technical leadership.

Since 2020, Pony.ai has been building PonyWorld not as a basic simulation tool for generating synthetic data, but as a full reinforcement learning training system spanning cloud-side training and vehicle-side deployment. As the system matured, improving the capabilities of Pony.ai's "Virtual Driver" increasingly came to depend on improving the world model that trains it, particularly its ability to represent real-world dynamics and interactions with sufficient accuracy and realism.

"PonyWorld 2.0 is an important step toward a more self-improving approach to autonomous driving development," said Dr. Tiancheng Lou, Founder and CTO of Pony.ai. "As AI systems become more capable, they can play a larger role not only in learning to drive, but also in guiding their own improvement — making L4 development more scalable over time."

PonyWorld 2.0 is already being applied across Pony.ai's L4 driverless fleet and R&D system to improve safety, ride comfort, and traffic efficiency while supporting faster fleet expansion and commercialization.

After validating the unit economics of robotaxi operations in two major metropolitan markets in China with its seventh-generation robotaxi fleet, Pony.ai has entered a faster phase of commercialization across both China and international markets. The company is targeting a fleet of more than 3,000 vehicles by the end of this year, with deployments spanning 20 cities globally. Nearly half of those cities will be in overseas markets.

A New Training Paradigm for Scalable Autonomy

That scale creates a new technical requirement. As driverless operations grow from hundreds of vehicles to thousands and beyond, it becomes both harder and more important to keep improving safety and performance without regression.

In Pony.ai's view, a true world model must do more than generate virtual scenarios. It must define what good driving means, model the physical world with high precision, and reproduce realistic interactions between the AI driver and surrounding traffic participants across both edge cases and everyday traffic.

PonyWorld 2.0 is designed to make that process more efficient. A structured intention layer allows the model to form an internal representation of why it made a decision, making large-scale self-diagnosis possible. The system can review its own decisions, compare intent with outcomes, and identify the types of scenarios where additional learning is needed. It can then generate targeted data-collection tasks for human teams, which gather the relevant real-world samples, feed them back into the cloud, and help recalibrate the world model for more precise training.

In Pony.ai's view, that changes the development process itself. In the early stages of autonomous driving, progress depended heavily on human engineers to design rules, label data, and decide what to train next. PonyWorld 2.0 points to a different model. As AI systems become more capable, they can take over more of their own improvement cycle, while human engineers increasingly serve as operators of a directed data-collection loop shaped by the system's own learning needs.

Pony.ai believes the technical approach behind PonyWorld 2.0, including high-accuracy world modeling, self-diagnosis, and targeted evolution, could become relevant over time to a broader class of physical AI training systems that must learn safely and efficiently in real-world environments. In that sense, PonyWorld 2.0 represents not only a deeper investment in the core training capabilities that could help define the next stage of physical AI, but also a technical approach whose relevance may extend over time to a broader set of physical AI scenarios beyond autonomous driving.

To learn how Pony.ai's world model has progressed, evolved, and reached its self-improving 2.0 stage, please read: **https://blog.pony.ai/the-evolution-of-pony-ais-world-model/**

About Pony AI Inc.

Pony AI Inc. (NASDAQ: PONY; HKEX: 2026), founded in 2016, is a global leader in achieving large-scale mass production and commercialization of autonomous driving technology. Pony.ai is committed to delivering safe, advanced, and reliable autonomous driving technology and solutions. At the heart of Pony.ai's strategy is its proprietary world model PonyWorld and its Virtual Driver technology. Together, they power the development and scaling of its Robotaxi services, Robotruck services, and licensing and applications businesses. With operations spanning China, Europe, East Asia, the Middle East, and beyond, Pony.ai stands among a select few companies globally to achieve fully driverless commercial operations. Pony.ai has forged deep and extensive partnerships across the autonomous driving value chain, enabling it to accelerate the commercialization of autonomous driving in line with its ultimate vision: "Autonomous Mobility Everywhere." For more information, please visit: https://ir.pony.ai.

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