On Monday, Uber announced the launch of 'Uber AI Labs,' a Silicon Valley-based research group that will fuel and expand its development of artificial intelligence.

By Hope Reese | December 5, 2016, 7:31 AM PST

Uber released a self-driving test fleet on the streets of Pittsburgh, PA, in September 2016.
Image credit: Uber

Ride-sharing giant Uber just unveiled an "AI lab," acquiring the New York startup Geometric Intelligence (GI) to "advance machine learning," it announced on Monday. The AI lab team, led by GI's cofounder Gary Marcus, will include 15 researchers—from New York University, Stanford, Cornell, and other universities—who will bring a "multidisciplinary approach" to Uber's AI development, drawing from science and AI backgrounds, according to Uber.

Uber has already made significant moves in the AI space. As Danny Lange, Uber's director of machine learning, told TechRepublic, "machine learning is Uber's DNA." The entire platform depends on integrating information from GPS locations, traffic, and pickup locations—and learning from millions of previous rides to improve its accuracy. Uber has already set up shop in Pittsburgh after recruiting top researchers from Carnegie Mellon, and launched a driverless fleet there. It also purchased Otto, a self-driving trucking company, back in August.

What may, perhaps, be most significant about the announcement is the fact that Uber appears to be entering the space of artificial general intelligence (AGI)—a goal that is reached when a machine can successfully perform a task the same way a human can. (This is different from "narrow AI," which was displayed when IBM's Deep Blue AI system mastered chess, beating

world-champion Garry Kasparov in 1996.) "With all of its complexity and uncertainty, negotiating the real world is a high-order intelligence problem," wrote Jeff Holden, Uber's CPO, in a post announcing the news.

SEE: [How data and machine learning are 'part of Uber's DNA'](#) (TechRepublic)

"Self-driving cars are one of the few very strong uses for artificial intelligence today and the demand for talent in this area has already led to numerous acquisitions," said Michael Ramsey, autonomous vehicle expert at Gartner. "Uber is trying to find a better way to train its vehicles to think like people and is hoping that Geometric Intelligence has a breakthrough in this area."

According to Toby Walsh, AI professor at the University of New South Wales, the GI approach is inspired by cognitive science, and "based on richer representations and probabilistic reasoning."

"It is good, nevertheless to see investment in technologies that go beyond deep learning. And it reflects how even technological mature organizations like Uber are having to reinvent themselves continually," Walsh said. "If your organization wants to succeed, you need to put AI close to the center of what you do."

The acquisition "makes sense for Uber's physical as well as purely digital undertakings," said Bryant Walker Smith, professor at the University of South Carolina and expert in the autonomous vehicles space.

AI researcher Roman Yampolskiy, head of the Cybersecurity Lab at the University of Louisville, agreed. "One can no longer dominate any industry without a robust AI infrastructure," he said. "All companies with necessary financial resources are trying to secure human resources in that space, and Uber is not an exception. Between self-driving cars and intelligent ride management, they need smart machines to remove humans from the loop in order to optimize their business model."

"Not every company should outright buy an AI firm," Smith said, "but every company in just about any industry should be working with one."

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