



Zapata Quantum Teams with NVIDIA to Apply Agentic AI to Accelerate Quantum Algorithm Development

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Initiative targets the creation of a scalable automated system for quantum resource estimation, a major bottleneck in quantum application development

BOSTON, June 23, 2026 (GLOBE NEWSWIRE) -- Zapata Quantum (OTCQB: ZPTA) ("Zapata" or the "Company") today announced it is applying agentic AI to accelerate quantum algorithm development by automating quantum resource estimation ("QRE") workflows, in collaboration with NVIDIA. The effort initially targets applications in quantum chemistry, including drug discovery, energy, and advanced materials development.

"We believe that automation, powered by advances in AI and informed by domain-specific knowledge, is the key to scaling quantum application development for real-world applications such as drug discovery," said Yudong Cao, Zapata's Chief Technology Officer. "By working alongside NVIDIA, we're applying agentic AI to address the challenge of efficiently benchmarking quantum algorithms, an underappreciated bottleneck in quantum application development."

Orchestrated Multi-Agentic AI Solution

Today, the benchmarking of a single class of quantum algorithms often involves years of expert effort spanning molecular modeling, algorithm design, and hardware resource estimation. Zapata and NVIDIA are collaborating on an agentic AI workflow designed to compress this process into a scalable automated system to significantly lower the cost and time required.

"Agentic AI is proving transformative in shortening the timeline to useful quantum applications," said Sam Stanwyck, Director of Quantum Product at NVIDIA. "This work with Zapata shows how crucial accelerated computing and AI is for practical and scalable quantum resource estimation, and how impactful that can be for developing meaningful applications in areas such as industrial quantum chemistry."

The workflow combines AI orchestration, continuously verified quantum workflows, and an AI feasibility model capable of predicting hardware requirements before computation begins. The approach utilizes NVIDIA Agent Toolkit software to provide guardrails and monitoring for the workflow's initial multi-agentic setup.

Approach Tested with Homogeneous Catalysis

The initiative has already demonstrated the potential of the approach in the field of homogeneous catalysis, building on [Zapata's prior work](#) in the same area as part of the DARPA Quantum Benchmarking program. Homogeneous catalysis is a computationally demanding and strategically important quantum chemistry problem given its applicability to high-value areas such as pharmaceuticals, energy and advanced materials.

The team of scientists from both companies now seeks to refine the methodology and broaden its application within quantum chemistry. Zapata also recently filed a provisional patent application related to an "agentic framework for quantum," reflecting the company's broader verification-aware AI approach to scalable quantum application development.

"The future of quantum computing will not be determined solely by hardware progress but by our ability to systematically discover, evaluate, and develop high-value applications," said Cao. "AI has the potential to do for quantum application development what modern software tools have done for traditional software engineering—enabling researchers to move faster, explore more ideas, and focus their expertise where it creates the most value."

About Zapata Quantum

Zapata Quantum is a leading hardware-agnostic, pure-play quantum software company focused on accelerating quantum application development. With a portfolio of more than 60 granted and pending patents developed over seven years, Zapata supports applications across cryptography, pharmaceuticals, finance, materials discovery, defense, and more. The Company is the only organization to have participated across all technical areas of DARPA's Quantum Benchmarking program and has worked with Fortune 500 enterprises and government agencies to translate quantum advances into real-world impact. The Company's study demonstrating the potential of quantum-enabled drug discovery was recognized as one of Nature Biotechnology's Top 10 Papers of 2025. For more information, visit [Zapata Quantum](#).

Forward-Looking Statements

This press release contains forward-looking statements, including statements regarding the Company's collaboration with NVIDIA and the potential future benefits of and market for quantum and AI technologies derived therefrom. Forward-looking statements are prefaced by words such as "anticipate," "expect," "plan," "could," "may," "will," "should," "would," "intend," "seem," "potential," "appear," "continue," "future," "believe," "estimate," "forecast," "project," and similar words. Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. We caution you, therefore, against relying on any of these forward-looking statements. Our actual results may differ materially from those contemplated by the forward-looking statements for a variety of reasons, including, without limitation, our ability to raise necessary capital, scale and re-establish material operations and secure and maintain contracts with customers and collaborators, the state of the U.S. economy including issues caused by affordability, the risk of future inflation and uncertainty surrounding interest rates, uncertainty surrounding and impacts arising from tariffs and developments relating thereto, our ability to attract and retain key personnel, our ability to obtain, maintain and protect intellectual property rights, the risk that software and technology infrastructure on which we depend fail to perform as designed or intended, the possibility that competitors may develop or access technology with similar or superior capabilities to our technology offerings, and the risk factors contained in our Annual Report on Form 10-K for the year ended December 31, 2025 filed with the Securities and Exchange Commission on March 31, 2026. Any forward-looking statement made by us in this press release speaks only as of the date on which it is made. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.

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