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## QUANTUM ALGORITHMS DEVELOPED FOR STARTUPS TO HARNESS POWER

 COMPUTING & TECH

### Researchers are developing quantum algorithms for startups aiming to harness quantum computing power.

All the major innovations we've seen in fields such as big data, artificial intelligence and machine learning all depend on the power of supercomputers. The next step in computing power is quantum computing. Quantum computers are based on a deep understanding of quantum physics. Standard computing on the other hand is binary, it consists of codes of zeros and ones. Quantum bits (known as qubits) can be both zero and one. The action of each qubit can also have an effect on every other qubit. While the underlying theory behind it is vastly complicated, fundamentally quantum computing has the potential to outperform standard computing to an extraordinary degree.

[Zapata Computing](#) is anticipating this quantum future by developing quantum-capable algorithms. Quantum computing remains largely theoretical. This is largely because keeping the quantum systems stable currently requires vast amounts of energy. Even the tiniest disturbances can throw off their sensitive calculations. However, Zapata has been developing and testing algorithm software that will run when quantum hardware is ready for use. These algorithms will then be available for startups seeking to utilize quantum computing. This software-as-a-service (SaaS) could help startups in a vast range of research industries, from molecular engineering and pharmaceuticals to climate change modelling. Founded by expert researchers from MIT and other leading institutes,

Zapata hope to be the go-to company for quantum research consultancy, as businesses such as google and IBM race to deliver capable hardware.

We've seen how companies are targeting rapidly expanding areas of innovation by giving startups the framework to build their ideas. Examples include a platform that facilitates [image recognition diagnostics for medicine](#) and a [blockchain toolkit](#) for developers. What other SaaS could we see companies offering to startups?

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