



Simple solutions to
impossible problems

For Immediate Release

BIGGER. FASTER. GREENER

**InfinityQ Builds the World's Largest Functioning Ising Machine
Offering the Fastest Quantum-Inspired Optimization Solutions
Ready for Industry Applications.
Today.**

Montreal, November 1, 2023: Imagine being able to solve billion parameter optimization problems with hundreds of thousands of variables in a matter of seconds. There are more possible solutions to these problems than there are atoms in the universe. This is exactly what the Research Team at InfinityQ has done, with off the shelf commodity hardware.

Leveraging the power of quantum theory, clever mappings, and intelligent hardware design, InfinityQ delivers breakneck solution speeds, usually associated with quantum computing without the cryo lab and scalability issues that come with supporting true quantum hardware.

“Our Quantum-Inspired model of computation uses many of the same underlying principles as pure quantum computation, namely the probabilistic nature of physical systems and interactions between particles. We map this model onto our hardware using our proprietary algorithms and methods to achieve state-of-the-art performance in solving large combinatorial optimization problems. In a comparison of Ising Solvers used by Toshiba, Hitachi, Berkeley, and Fujitsu, with their associated hardware infrastructure and binary variable support, InfinityQ supports the largest number of fully connected binary variables. “

Dr. **Saavan Patel, PhD:** Co-Founder and Chief Technology Officer at InfinityQ
<https://www.infinityq.tech/blog>

Supporting the largest-to-date Ising Machine at 112,000 nodes, translating into ~6.3 billion parameters, InfinityQ's Research Team has redefined what is possible. From reducing the cost to operate, achieving state-of-the-art runtimes, and providing outstanding solution quality, InfinityQ's Solver is ready to be deployed, in the cloud or on premises, to solve the most challenging computational and optimizations problems of any industry.

EXPANDING TO ACCOMMODATE FUTURE WORK

The Research Lab at InfinityQ is just getting started. Since the beginning of the year, we have recruited top talent from leading research groups internationally and are rapidly growing. We are thrilled to welcome esteemed Advisory Board Members **Prof. Sayeef Salahuddin**, TSMC Distinguished Professor Electrical Engineering & Computer Science, UC Berkeley, PhD Electrical & Computer Engineering (Purdue) and Professor **Anil Aswani**, Industrial Engineering & Operations Research, UC Berkeley, PhD Electrical Engineering & Computer Science, UC Berkeley.

InfinityQ Technology inc. is a women-led company that develops Quantum Inspired solutions. With sector focus on Last Mile Delivery, Logistics and Life Sciences, InfinityQ delivers optimization solutions to the most difficult combinatorial problems in real-time, helping customers save money on their operations with optimal solutions that are fast, flexible, simple and green.

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Want to learn more or book a demo? Contact sales@infinityq.tech

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