

MULTIVERSE

COMPUTING

Unlocking the Quantum AI Software Revolution

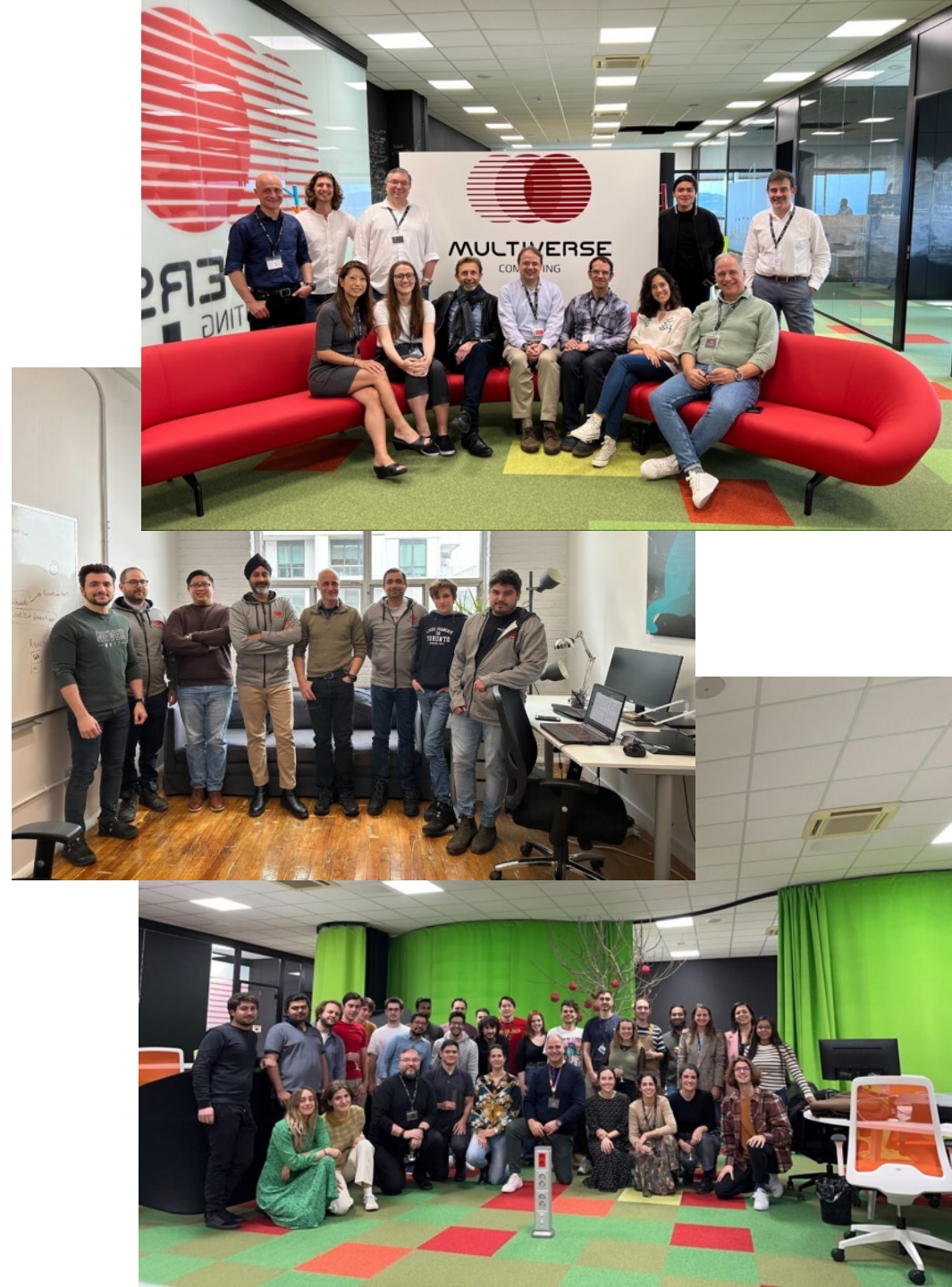


Largest quantum-AI software company in EU:

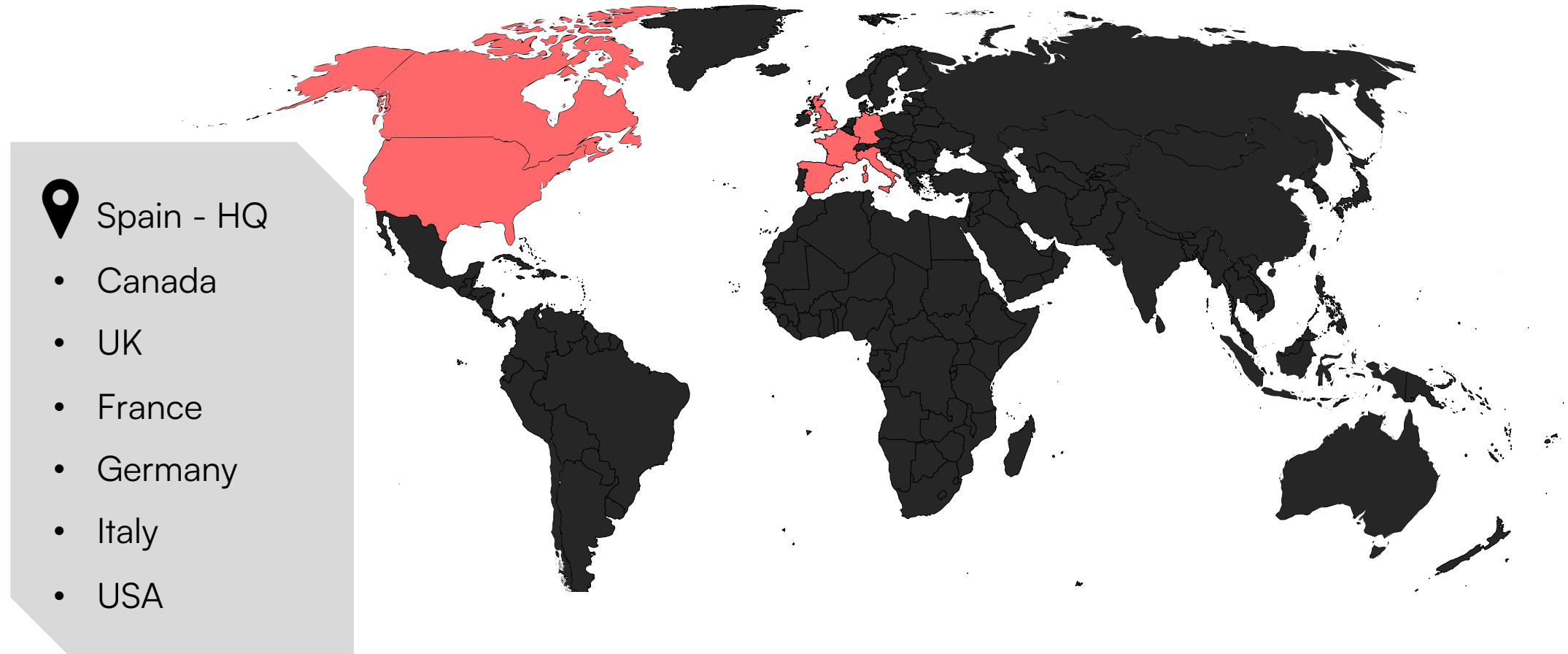
- Created in 2019
- 150+ people, San Sebastian, Toronto, Paris, Munich, Milan, London
- 10+ industry verticals, 50+ clients
- IP protection leader (~100 patent applications)
- Obsessed with making quantum-AI easy



CompactifAI
AI Model Compressor



Global Presence



The problem with AI

The cost is **huge**

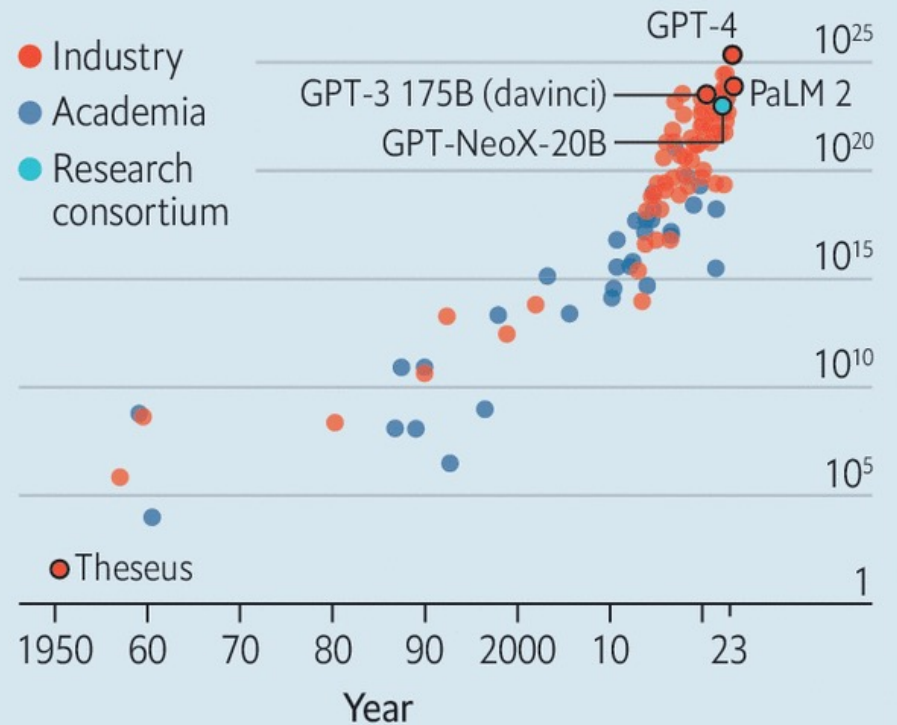
Training ChatGPT-4 = 100M\$ in electricity bill. And it still doesn't speak well!

Given the exponential demand, this is completely unsustainable.

Galaxy brains

Computing power used in training AI systems

Selected systems, floating-point operations, log scale



Sources: Sevilla et al., 2023; Our World in Data

Our Unique Value Proposition

Combining cutting-edge quantum and quantum-inspired algorithms to achieve unparalleled performance improvements.



Efficiency & Speed

Delivering solutions up to 1000x faster than traditional methods.



Accuracy & Precision

2.2x more accurate results, minimizing errors in critical applications.



Profitability & Cost Savings

Revenue and financial gains: profit increases and reduction in costs.



Scalability & Flexibility

Handling large-scale problems effortlessly, adapting to various deployment environments.



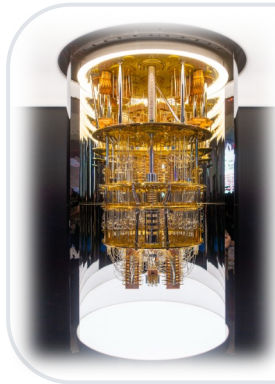
We have the Best Technology coming from the Quantum and Quantum-Inspired research domains, available NOW

▣ QUANTUM

Algorithms based on Quantum Computing running on **Quantum hardware**.

Quantum computing architectures vendors (Dwave, Pascal, IBM, etc.)

Exascale and Petascale
Supercomputers
Typically require 15MW-25MW to operate



Quantum Computers

Could consume 100x or 1000x less (open question)

When Quantum Supremacy is achieved, no computer will be able to match the energy efficiency of quantum computers.

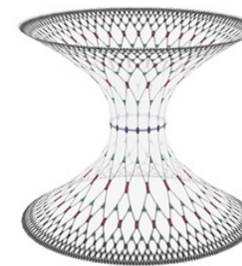
⚙️ QUANTUM INSPIRED

Algorithms based on Quantum Computing principles on **conventional hardware systems**.

Improved performance and accuracy.

Typical AI / ML
Algorithm Platforms
Massive (over 1000 units) GPUs
and CPUs clusters

Tensor Networks



Already 100x — 1000x faster
requiring 80x less memory and
providing higher precision

Uses less energy to deliver same results
while also minimizing data flow required
for training

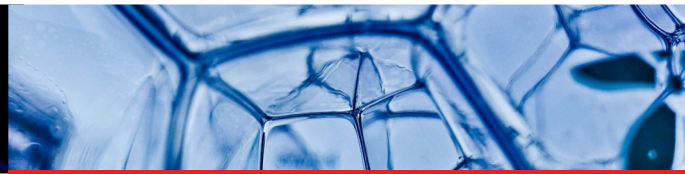


Problems We Solve



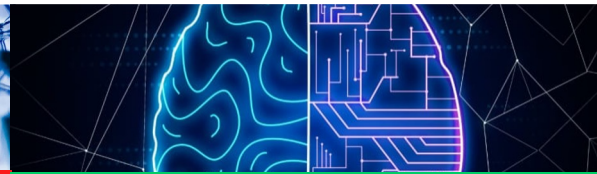
OPTIMIZATION

- **Logistics:** Routing (route optimization)
- **Finance:** Portfolio optimization
- **Telecommunications:** Intelligent networks



SIMULATION

- **Life sciences:** Drug research
- **Aerospace:** Fluid dynamics
- **Research:** Material simulation



ARTIFICIAL INTELLIGENCE

- **Finance:** Fraud detection
- **Manufacturing:** Predictive maintenance
- **Energy:** Market prediction.



CYBERSECURITY

- **Post-Quantum Cryptography**
- **QKD (Quantum Key Distribution)**



Application Sectors

Finance



Manufacturing



Energy



Healthcare & Life Sciences



Chemistry



Cybersecurity



Hydrogen



Defense



Pure Engineering



Aerospace



Others GARRIGUES

Multiverse Computing Singularity

Our flagship product: leverages **quantum and quantum-inspired algorithms** to solve complex problems in areas such as:



Finance



Energy



Cybersecurity



Manufacturing



Defense

- Singularity™ excels in **optimization and machine learning** providing unparalleled computational speed and accuracy as a hardware agnostic SaaS platform.
- This enables organizations to gain a competitive edge in their respective markets.



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Singularity Unlocks the Power of Quantum

Hardware

DWAVE Quantum
Computers

D:WAVE
The Quantum Computing Company

IBM

IONQ

rigetti

PASQAL

XANADU

Classical Computers

Dual quantum-classical
workloads to optimally leverage
all hardware



Quantum Software

Multiverse Computing

Singularity

- ✓ Better results solving real complex problems
- ✓ Hardware-agnostic
- ✓ Quantum & Quantum-Inspired



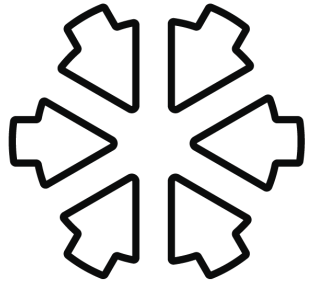
Any End-User

- ✓ Any Industry/Customer
- ✓ Easy to Deploy - Even by Third Parties
- ✓ Easy and Intuitive



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What if we could reduce computing power and energy?



CompactifAI

Multiverse Computing

Groundbreaking compressing tool of foundational models that use Tensor Networks to extremely compress AI systems, such as Large Language Models (LLMs), making these efficient and portable.

For any AI Infrastructure:

↓ 95%
Size reduction

↓ 50%
Energy reduction

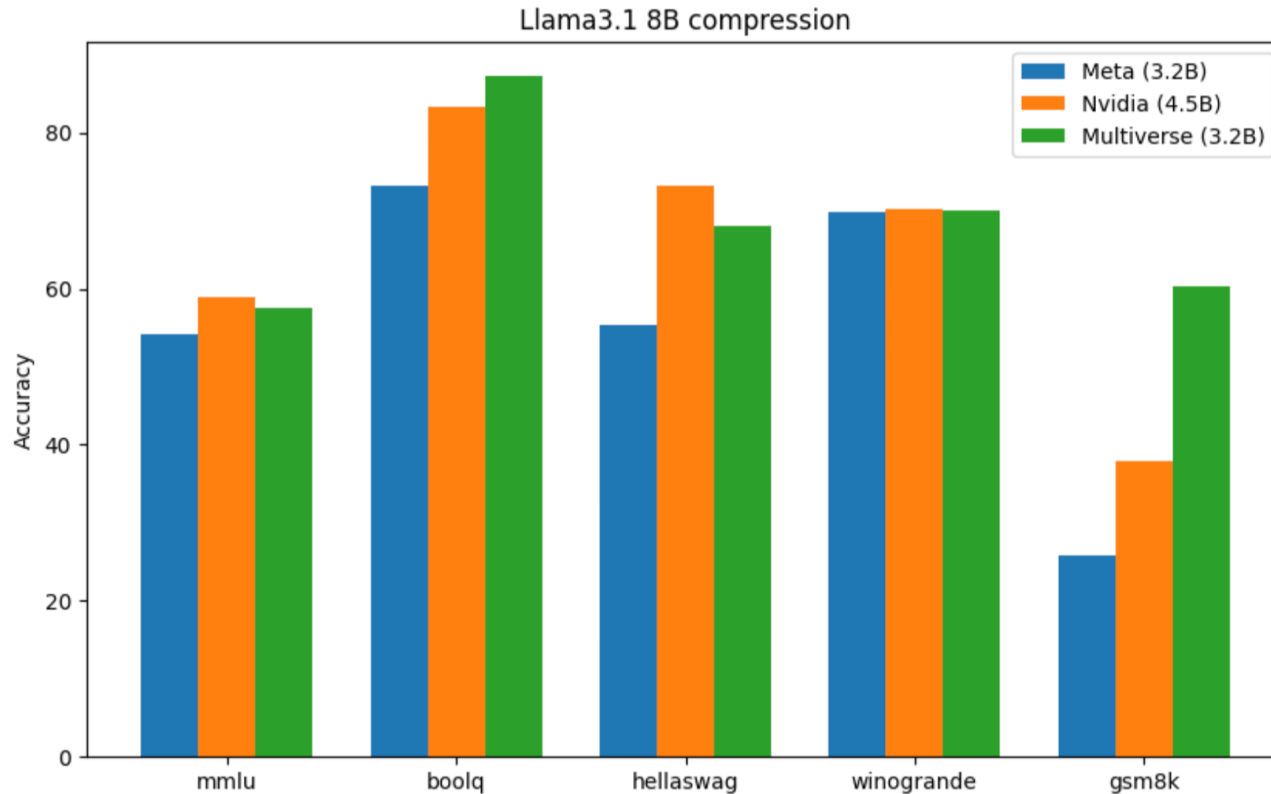
↑ 2x - 8x
Speed

↑ 30%
Resource utilization



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Huge Size Reduction and Huge Accuracy



Better performance than e.g. META and NVIDIA for similar size

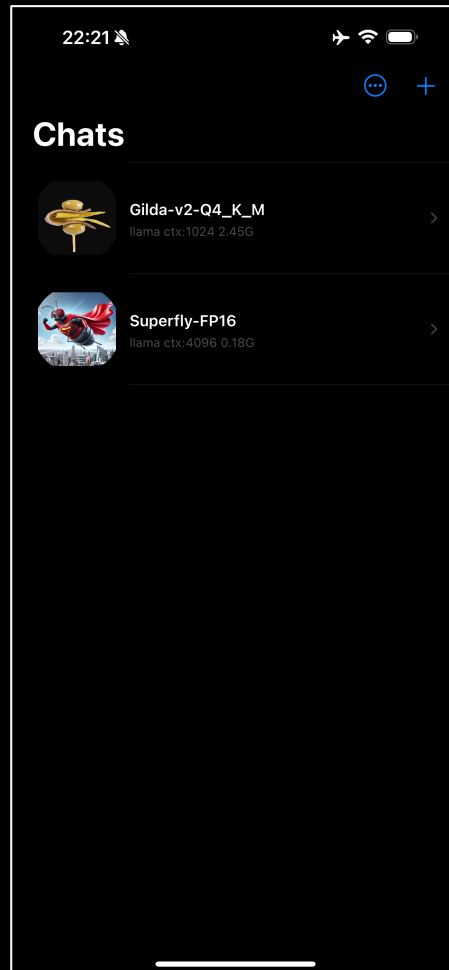
The huge **parameter reduction** is the **main source of speedup**.

On LLMs and other AI models

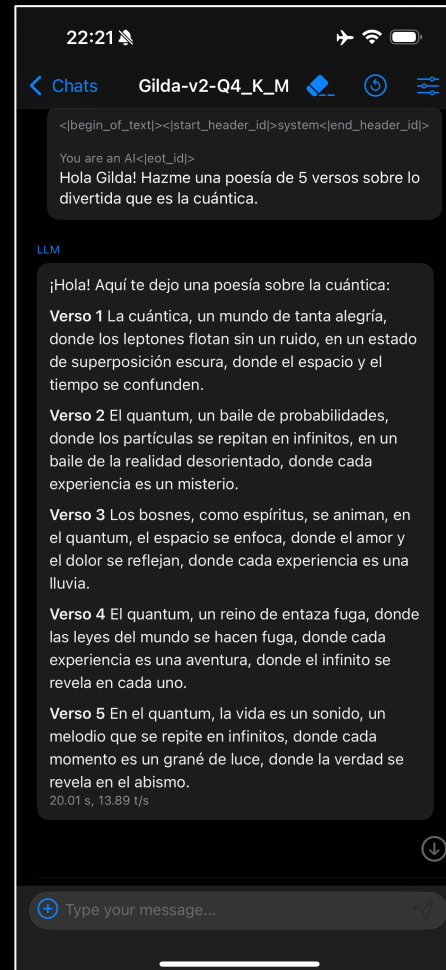


Deployable on Devices!

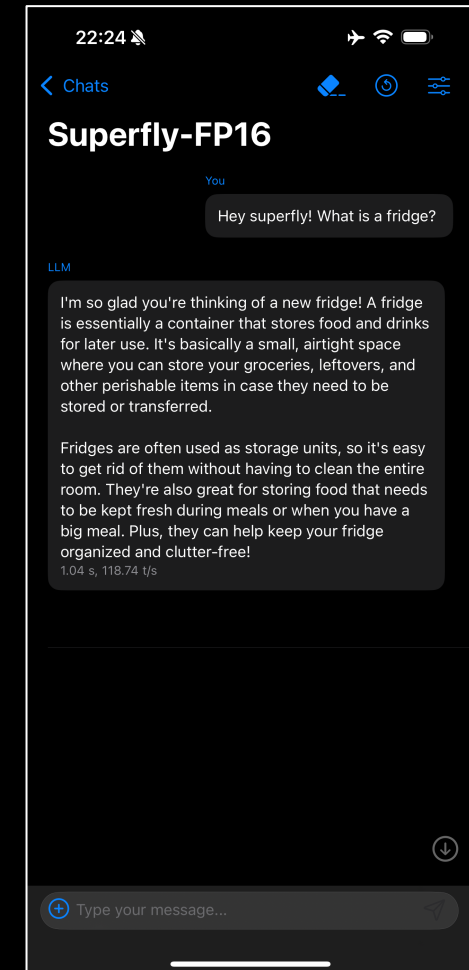
*Compressed models
deployed on iPhone*



*Small model with
reasoning capabilities*



*Smallest model worldwide
that talks (80M parameters)*



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Highlights





PRODUCTS KINDLE & FIRE NEWS LOGISTICS AMAZON STORIES

Home — News — Press Release

News

Multiverse Computing has been selected to participate in Amazon Web Services' Global Generative AI Startup Accelerator

The global leader in quantum AI is one of 80 companies selected from more than 4,000 participants to receive AWS credits and targeted training to accelerate AI innovation with AWS. The program identifies top startups that use generative Artificial Intelligence (AI) to solve complex challenges and help them scale their solutions.



Iberdrola and Multiverse Computing announce pilot project success to optimise battery installation in the grid

Quantum Computing Report News Analysis Analysis Players Resources Scorecards Podcasts/Interviews About

Iberdrola and Multiverse Computing Successfully Complete Pilot Project to Optimize Grid-Scale Battery Installation



Search... Recent Posts > German Ecosystem Part 1: Quantum Processor Development > How Confident are the French



Bosch Group steps into the Multiverse Computing with quantum digital twin initiative

Having already established working relationships with names including IBM and Microsoft, Spain's Multiverse Computing's offer is now being implemented in the Bosch automotive electrics plant in Madrid.



Unlock quantum computing today

In collaboration with Multiverse Computing, we're bringing the QFStudio platform to market, enabling our users to access quantum and quantum-inspired technologies as a service. QFStudio provides both a user interface and API access to cutting-edge algorithmic solutions (solvers) to solve your hardest use cases such as optimization problems, risk calculations, or derivative pricing.





Tech Mahindra signs quantum software deal

The ITSP will focus on selling Multiverse Computing's Singularity quantum data product, which is accessed through an Excel plugin.



We create chemistry

Multiverse Computing, BASF To Explore Quantum-Powered Forex Trading Optimization



BBVA and Multiverse showcase how quantum computing could help optimize investment portfolio management

Through a proof of concept, BBVA and Spanish startup Multiverse have tried out and benchmarked different quantum technology platforms to solve a classic problem of finance: The optimization of investment portfolios with real market data. Thanks to this analysis, published in a scientific paper, the authors have elucidated new formulas that could help speed up this type of calculation, maximizing profitability and minimizing risk.



BANK OF CANADA
BANQUE DU CANADA

Bank of Canada and Multiverse Computing complete preliminary quantum simulation of cryptocurrency market

Business Announcement
HKA MARKETING COMMUNICATIONS

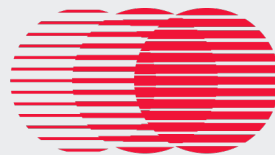
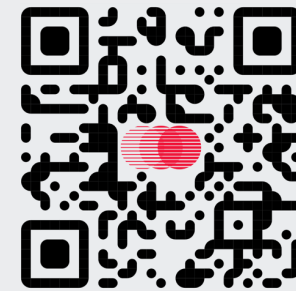
Toronto, Canada – April 14, 2022 – Multiverse Computing, a global leader in quantum computing solutions for the financial industry and beyond with offices in Toronto and Spain, today announced it has completed a proof-of-concept project with the Bank of Canada through which the parties used quantum computing to simulate the adoption of cryptocurrency as a method of payment by non-financial firms.



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Thank you

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