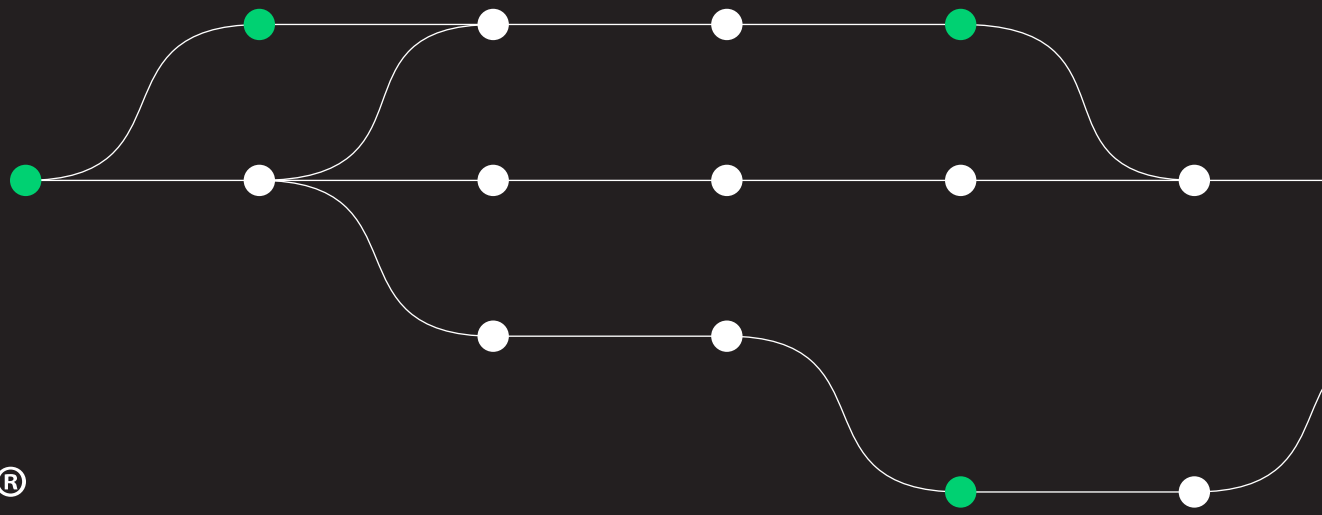


Orquestra®

The enteprise software platform

for building and deploying quantum-ready applications™

ZAPATA

Don’t pick one framework:
Orchestrate across them all

Orquestra unifies quantum software libraries and hardware backends in one modular, workflow-based toolset built for applied quantum computing.

Plug-and-play software and hardware

Leverage quantum and quantum-inspired libraries in optimization, chemistry and ML. Conduct on a full range of quantum simulators, quantum devices and HPC to run hybrid quantum-classical workflows at scale.

Accelerate experiments

Automate data processing and management. Reproduce, parallelize and collaborate at scale. Eliminate conflicting dependencies.

De-risk your enterprise toolset

Scalable, secure, flexible tools and infrastructure to enable quantum work in the enterprise.

Build

Build quantum-enabled workflows® in Python, by yourself or with Zapata. Use Zapata tasks, your own tasks, and open-source libraries.

Software

Zapata Proprietary Tasks

Quantum Qiskit, Cirq, Ocean™, OpenFermion, Pennylane, PyQuil

Machine Learning PyTorch, Scikit-Learn, TensorFlow

Finance QuantLib

Chemistry NWChem, Psi4

Orchestrate

Orquestra Runtime executes tasks where they need to run, across any quantum or classical backend.

Hardware

Superconducting Qubits
IBM, Rigetti, D-Wave

Ion Traps IonQ, Quantinuum

Quantum Annealers

Photonic Qubits•

Dedicated Classical Hardware•

Quantum Circuit Simulators
Cirq qsim, Intel-QS, PyQuil QVM, Qiskit Aer, Qulacs

Deploy

Deploy Orquestra Runtime locally or remotely in Zapata’s cloud or your private cloud. Convert workflows into Application containers for production.

Data Processing

Local Runtime

Orquestra Cloud Runtime

Private Cloud Runtime (available with Engagements) AWS, Google Cloud Platform, IBM Cloud, Microsoft Azure

Supported hardware

D-Wave · IBM · IONQ · QUANTINUUM · rigetti

• Features and Integrations coming soon.

Orquestra®

Example Use Cases
for the Enterprise

Orquestra was built to tackle Machine Learning, Optimization, and Simulation & Modeling problems across industries such as Finance, Materials, BioPharma, Healthcare, Telecom, Operations & Logistics, Aerospace & Automotive, and Media.

Finance

Solution
Accelerated sampling for more efficient exotic derivative pricing, valuation adjustments, risk analysis/stress testing (for CCAR and Dodd-Frank compliance).

Approach
Improved efficiency of models for asset value fluctuation through quantum techniques that accelerate sampling from probability distribution.

Operations & Logistics

Solution
Improving the gross service capacity of logistic systems for maximizing distribution and sales.

Approach
Analysis of complex delivery systems to uncover valuable opportunities for process and operational improvement.

BioPharma

Solution
Promoting drug discovery by simulating the quantum mechanical behavior of electrons in the critical regions of a chemical interaction.

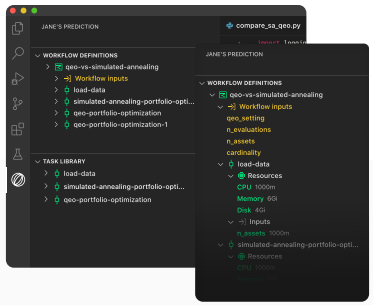
Approach
More accurate approach to computing the binding energy of small molecular drugs to protein targets to increase the accuracy of binding energy simulations.

Materials

Solution
Materials discovery for Li-ion batteries through more accurate modeling.

Approach
Acceleration of high-throughput screening of electrolyte additives for high-voltage Li-ion batteries, with the goal of improving the energy density of batteries.

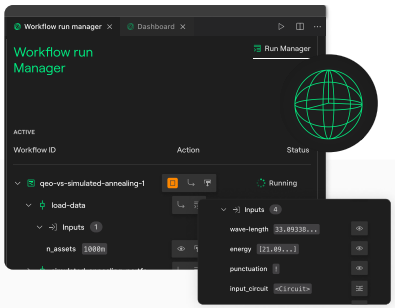
The Unified Quantum Toolset, Built for Enterprise Scale



Unify Software & Hardware

Orquestra's workflow approach doesn't replace SDKs and Python modules, it unifies them with a software platform designed for quantum teams.

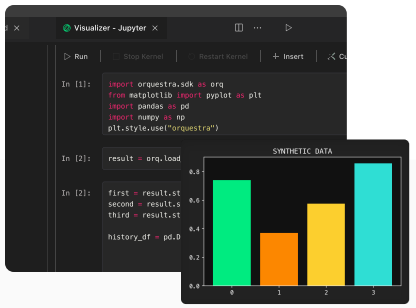
- Leverage Zapata's proprietary algorithms, custom tasks and workflows.
- Compose solutions with modular tasks, delve deeper into the code when you need.
- Swap in new quantum hardware as it becomes available.



Enterprise Scale

Large computational power without the large headache. Orquestra deals with scaling compute resources to match your problem so you don't have to.

- Iterate and re-run across backends.
- Go beyond toy problems and notebooks.
- Run on scaled up public OR private cloud resources.



Manage Results

Python API retrieves results from any run, anytime, anywhere

- Export Python objects into formats for your favorite analysis tools.
- Find errors faster by viewing data produced at each step in the workflow.
- Share data and workflows with teammates easily.

Orquestra®

ZAPATA

Zapata Computing is the quantum software company empowering enterprise teams to accelerate quantum solutions and capabilities.

With its introduction of Orquestra, the first and only end-to-end, workflow-based toolset for applied quantum computing, Zapata is spearheading a new quantum development paradigm. Built on interoperable, extensible and modular classical-to-quantum software and hardware frameworks, Orquestra enables teams to compose, run and analyze complex, quantum-enabled workflows™ and challenging compute problems at scale. Orquestra is purpose-built for quantum machine learning, optimization and simulation problems across industries.

Working in close collaboration across the quantum ecosystem, including partnerships with Amazon, Google, Quantinuum, IBM, Microsoft, Rigetti and others, Zapata is backed by Prelude Ventures, Comcast Ventures, The Engine, Pillar VC, BASF Venture Capital, Pitango Ventures, Robert Bosch Venture Capital and Honeywell Ventures.

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