

Data Science & Quantum Computing United



Data science is revolutionizing financial institutions. The emergence of machine learning as the dominant approach to analyzing data represents a rapid enhancement in both capability and in the skills base and management structures required to implement competitive solutions. Many firms are seeking external help to identify and exploit new opportunities.

The sensitivity of the data, the regulatory requirements, the sheer volume of high-resolution information, and the criticality of the systems make this area among the most challenging in which to operate. QxBranch prides itself in delivering state-of-the-art solutions that navigate this environment seamlessly.



Q^xBranch

The Future of Data Science & Finance

About Our Partner

QxBranch is a data analysis and quantum computing software company based in Washington, D.C. The company provides data analytics services and research and development for quantum computing technologies.

Industry

Data Analytics, Quantum Computing, Finance

Market

United States

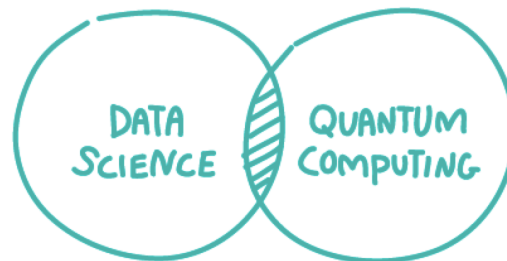
As expected, finance firms benefit from advanced analytics when it comes to risk management, trading, and economic analysis. Advanced analytics also deliver outsized value in monitoring behavior for fraudulent, malicious, or otherwise illegal transactions.

As in other industries, advanced analytics applied to customer data can provide detailed insight — defining and profiling banking customers, illuminating behavior, and understanding their ‘journey’ through products (credit cards, home purchases, investments, etc.). This helps banks customize products to their clients’ needs, offering better service and optimizing customer lifetime value and retention.

QxBranch sees significant potential for applying advanced data analytics to insurance products, a major area of activity for the company. Advanced models are particularly well-suited to risk areas evolving dynamically that do not necessarily behave consistently over time — such as the case with cyber insurance. QxBranch develops some of their most complex solutions within a straightforward, end-to-end analytics framework: Dataiku.

QxBranch and Quantum-Based Solutions

QxBranch is a leader in developing quantum computing software. Quantum computers will revolutionize every area of the economy in the coming decades and many of its initial applications will be based on machine learning and artificial intelligence. QxBranch works with leading firms in finance (and other verticals) to characterize how the quantum approach will affect their business and competitive landscape.



Dataiku integrates with our quantum software framework seamlessly. Quantum calculations need to run on pre-processed and cleaned data. For such computations, QxBranch adopts Dataiku to ingest, clean, and prepare the data at hand. From there, QxBranch inputs a custom Python module that calls a quantum function. The calculations run on the quantum computer and probabilistic results are then re-injected into Dataiku for analysis and visualization.

“

We are very pleased to be a Dataiku partner. Dataiku DSS simplifies the process of deploying enterprise-grade solutions, keeping our engineers and data scientists focused on the hard problems. We expect the platform to help us continue to deliver considerable value well into the future, and through the quantum computing revolution.

”

Paul Guthrie
Chief Strategy Officer
QxBranch

QxBranch & Dataiku: End-to-End Quantum Flows

A modular structure for rapid prototyping

Dataiku enables QxBranch to approach a problem using a typical standard framework to:

- Ingest, clean, and prepare data
- Create a custom Python module that calls a quantum function
- Return results to Dataiku's visual interface for analysis and visualization

Accelerated R&D

With Dataiku, QxBranch can focus the majority of its time on R&D around quantum algorithms and outputs rather than on medial tasks involved like data preparation and pre-processing (tokenizing, stemming words, etc.).

Code friendly
team-based user
interface



Easy sharing of notebooks
and Python code for data
pre-processing & cleaning

Analysis and visualization
of quantum outputs in user
friendly interface



Easily create custom
Python module to call
quantum functions

Get Started

www.dataiku.com/try