

Accelerated Compute for Modern Data and AI Platforms



Banking and capital markets firms, payment companies and fintechs are rapidly modernizing their strategies to become more data driven in their investment approaches.

As financial services firms gain access to expanding data streams, fresh challenges arise — straining the ability of existing platforms to handle large-scale data processing that fuels the creation of AI enabled applications.

Generative AI is a powerful synthesis machine with deep learning models that quickly absorb vast data, comprehend context and generate novel content, spanning text and visuals. Positioned for transformative impact, generative AI has the potential to revolutionize financial services — an information-intensive sector responsible for trillions in assets. With the integration of generative AI and LLMs — coupled with accelerated data processing — a robust lakehouse platform emerges, creating new opportunities for intelligent financial services, enhanced customer experiences and increased revenue.

Databricks x NVIDIA Platform for Financial Services

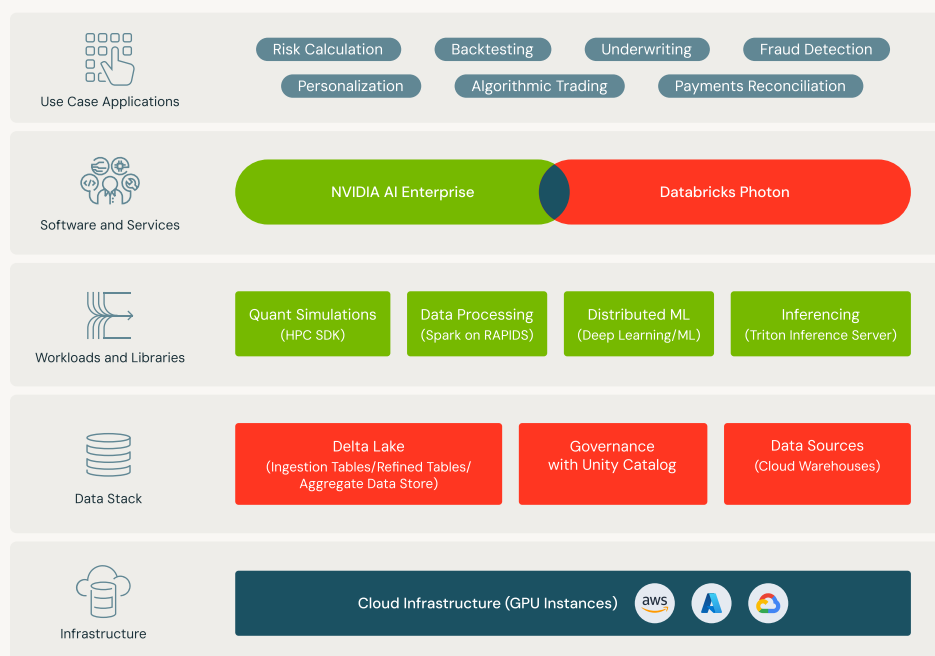


Figure 1. Modern data architecture for financial services institutions (FSIs)

Platform benefits



Improve Pricing and Risk Management

Enable backtesting at scale with the ability to create complex calculation engines.



Lower TCO on Model Validation With Accelerated Compute

Capitalize on lower TCO with enhanced GPU performance when leveraging high-performance compute for AI model development and validation.



Faster Innovation With Accelerated Machine Learning

Layer automated monitoring and alerting on top of your lakehouse to deliver AI-driven insight to drive revenues.

Unlock the power of data and AI with the Databricks Lakehouse and NVIDIA's High-Performance Compute

With Databricks Lakehouse, financial firms can unlock the full potential of their data through robust analytics and AI — enabling real-time risk management and data analytics for transformative solutions.

And with NVIDIA's accelerated computing platform, financial institutions can harness the power of AI and high-performance computing (HPC) to learn from vast amounts of data while responding quickly to market fluctuations. The **NVIDIA RAPIDS Accelerator for Apache Spark™** accelerates data science processing times up to 5x faster and allows the same work to be completed at a quarter of the infrastructure cost.



Leading financial services firms power innovation with Databricks x NVIDIA

Databricks and NVIDIA are enabling financial organizations to collaborate and unlock data-driven innovation for a wide range of use cases across financial services — all aimed at driving more profitable portfolios through the use of data and AI, powered by accelerated compute.



BNY MELLON

Providing insight into governance and security aspects of the underlying infrastructure used for MLOps and their journey to a production-grade AI and machine learning system.

[Watch now →](#)

Swedbank 

Using NVIDIA GPUs as part of their fraud and money-laundering prevention strategy, Swedbank reportedly saved \$150M in a single year using AI fraud detection. They achieved this by training generative adversarial neural networks (GANs).

[Read now →](#)

Munich RE 

Munich Re Markets has developed an approach using interpretable machine learning — sometimes called Explainable AI (XAI) — to analyze the robustness of diversification resulting from various portfolio allocation methods.

[Read now →](#)

S&P Global

Helping customers glean insights from alternative data sets — from ESG to textual — driving more responsible, sustainable investments and mitigating risk.

[Watch now →](#)



Point 72

Enabling alternative data sources and machine learning to create high-quality industry compliance research to help investment teams achieve alpha.

[Watch now →](#)


 **GEMINI**

Accelerating rapid analysis of order book spread, volatility and liquidity costs to unlock intelligent insights generated from terabytes of data and billions of records in milliseconds

[Read now →](#)


Accelerate data-to-value with these Solution Accelerators

Here are examples of Databricks' purpose-built Solution Accelerators that can easily benefit from GPU acceleration. They'll help you move from idea to proof of concept in as little as two weeks.




Modern Investment Data Platform

[Learn more →](#)




Credit Card Transactions Analytics

[Learn more →](#)




Modern Risk Management

[Learn more →](#)



AI Model Risk Management

[Learn more →](#)

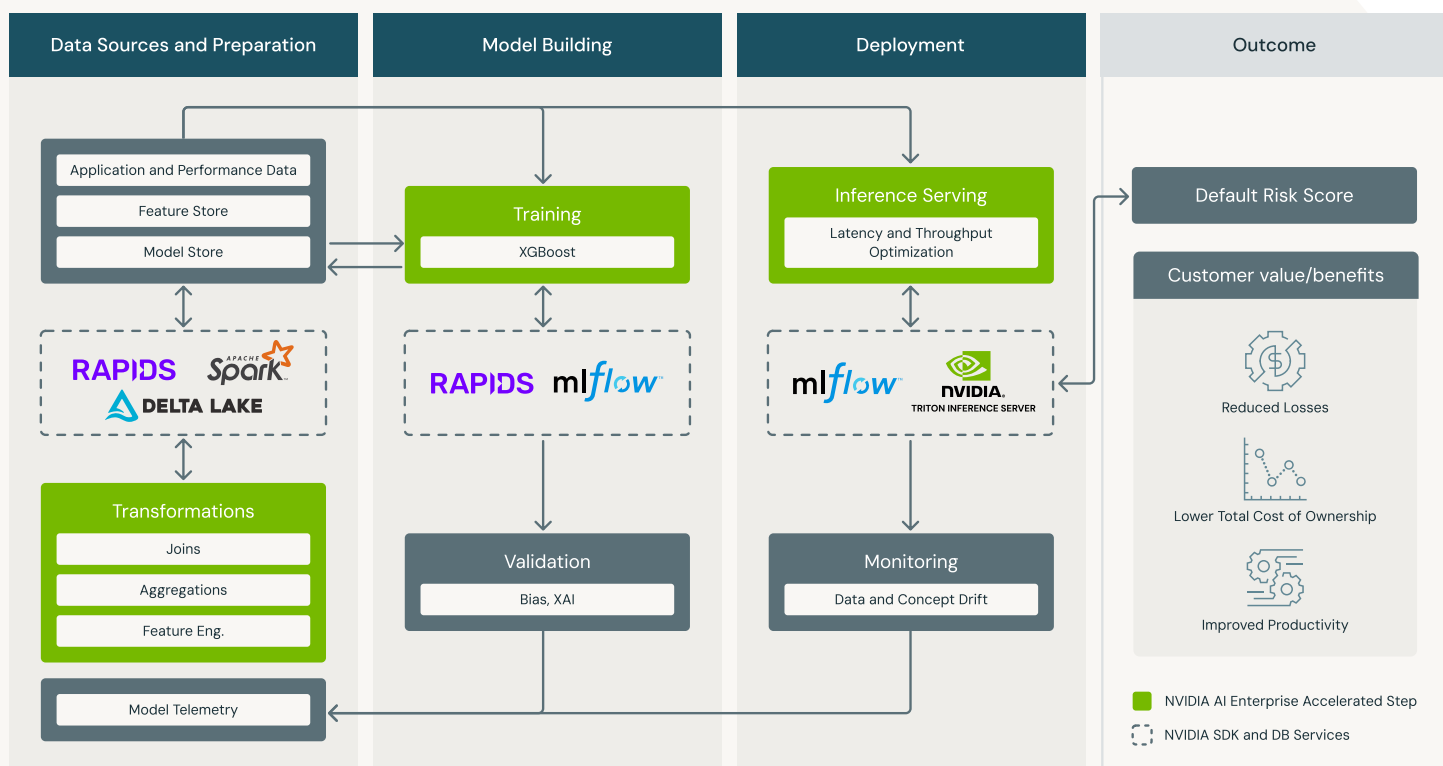


Analyze ESG Performance Analytics

[Learn more →](#)

Credit risk workflow example

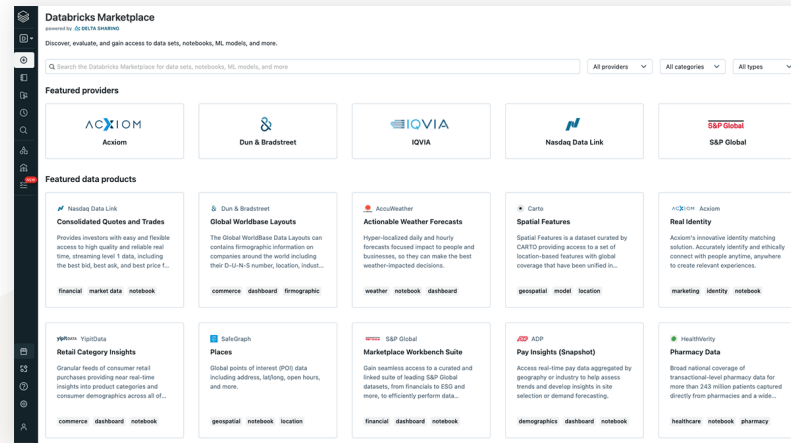
Figure 2.
Sample Credit Risk Workflow use case



Databricks Marketplace

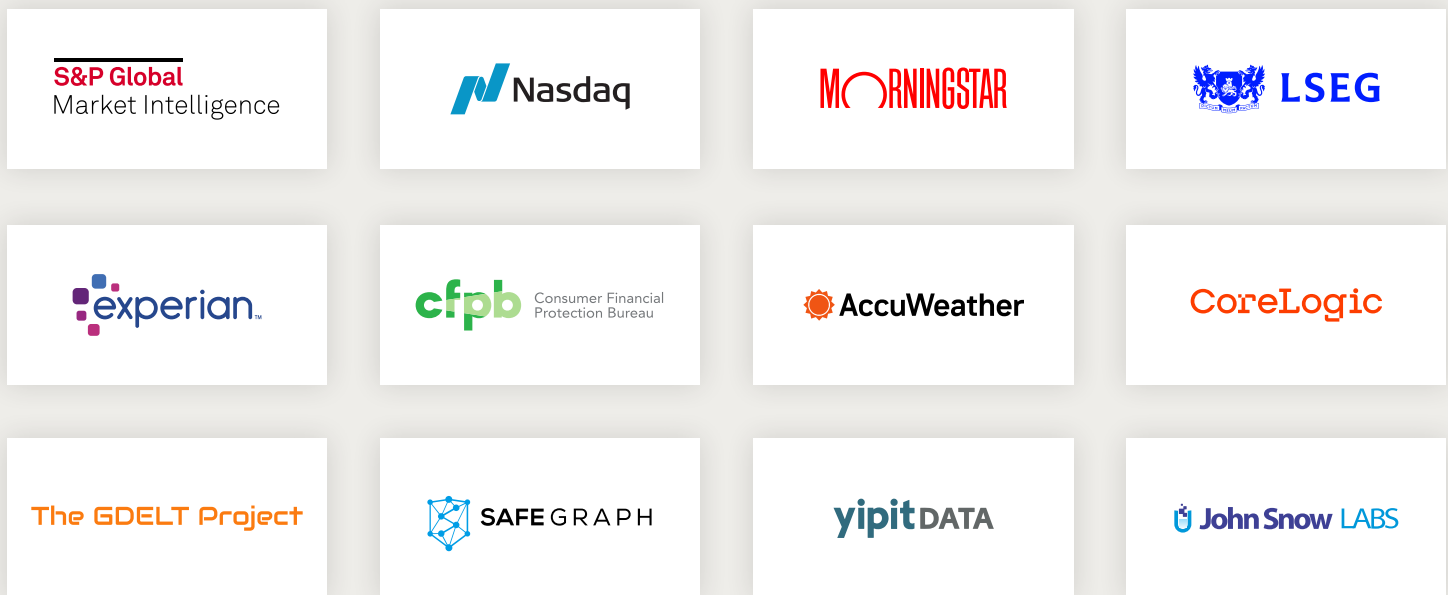
Databricks Marketplace is an open marketplace for data, analytics and AI, powered by **Delta Sharing**. It brings together a vast ecosystem of data consumers and data providers to collaborate across a wide array of data sets without platform dependencies, complicated ETL, expensive replication and vendor lock-in. Data providers can expand their businesses and user reach — and unlock new revenue opportunities.

Financial Services institutions can accelerate projects to monetize data and build alternative streams of revenue (e.g., monetizing unique data sets and models) more seamlessly to a broad audience. The Databricks Marketplace sets the stage for capital market firms to accelerate having data as an asset on the balance sheet.



Data Providers – Leading Data Assets on Marketplace

Financial Services-relevant data partnerships



Discover more about Databricks and NVIDIA

Learn more about the **Databricks Lakehouse for Financial Services** and **NVIDIA's AI Solutions for Financial Services**.