ALTIMETRIK®

Driving Efficiency & Platform Modernization In Predictive Finance To Perform Better & Deliver Results

Client: Global Pharmaceutical Giant

80%
reduction in resources to manage the predictive finance platform

60%
improvement in time-to-deliver

Highly
scalable & replicable across geos

100%
compliant & meets security standards

Background

The finance team of a global pharmaceutical company wanted to improve their Predictive Finance capabilities using GAIA on their data platform to overcome a slew of operational, architectural, and tech-stack difficulties with the existing legacy platform.

The desired outcome – through the science of Predictive Finance – was to measure the performance of product and service lines, identify new opportunities for monetization, predict sales, forecast asset usage, and proactively meet P&L objectives. They wanted to make 2-to-3 year predictions globally, by geography, for the revenue related to each drug in its portfolio.

Pain Point

Legacy AI capabilities left the client grappling with problems like diminishing returns, escalating operations cost, and the high risks of new features and enhancements breaking existing functionality. There was also an additional underlying problem. For almost a decade, the client had to employ a team of dedicated data scientists to just run and manage the legacy platform. The client now wanted to simplify the platform to meet the needs of a broader set of users, free its data science team for new projects, reduce time-to-predict and become more responsive.

They wanted to take quick action to transform the platform with minimal disruption and improve the organization's ability to strategize based on forecasts and predictions. This would also lead to bandwidth creation in the existing data science teams to innovate and create impactful interventions. Plus, they would not be forced to hire more data scientists to attend to new challenges.

Key Objectives

Scalability & replicability

Future-readiness

Increase in speed of delivery

Ease of experimentation for large user base

Reduction of human effort & intervention

Well-organized, consistently written, and modularized code for shorter learning curve

Traceability and model tracking for transparency

Compliant and meeting security standards

Metadata driven and complete configurability for greater flexibility and control

Solution

End-to-end Modernization Roadmap

Altimetrik's team of practitioners evaluated the existing platform, and in collaboration with the client, co-created a state-of-the-art cloud native architecture with a pluggable core AI engine in Python. The team identified the need for a purpose-built cloud-based architecture with powerful tools and technologies, such as AWS-SageMaker to build and deploy ML models at scale, Snowflake for data warehousing, AI/ ML libraries - guided by advanced data platform architecture principles, and InfoSec prescriptions to deliver the required performance.

This also included transforming the client's legacy system from R, an aging statistical programming language in which the prediction model was originally written, to the more contemporary and generic Python.

A novel approach was employed to completely integrate and streamline MLOps with CI/CD pipeline to address one of the biggest pain points, i.e., operational complexity and overheads with the legacy AI/ML platform. The client can now trigger processes with a single click to fetch data, process it, and deliver results.

Failures in processes are flagged to the user for remediation. The system incorporates sophisticated resource monitoring with the ability to recover from interrupted or broken processes. The system is metadata-driven and configurable for increased flexibility - unlike the legacy system that lacked consistency and transparency.

The new application and cloud platform combination have been made adaptable and maintainable through well-documented modularization and certified quality standards.

Outcome

Clear separation of data engineering pieces and core data science components for a highly cohesive and de-coupled architecture rendered significant operational ease that enabled the data science team to focus on delivering value-adds instead of regular operations, tracking and maintenance. The new system also shortened the learning curve for new data scientists through well-organized, consistently written, and modularized code.

Resources are now optimally utilized through the combination of system & application-level parallelization along with sophisticated resource monitoring mechanisms.

Altimetrik helped the client achieve:

- Faster forecasts for the CFO, adding to organizational agility

- 80% reduction in resources in managing the platform

- Minimized cost of transformation by using an offshore team with less than 10% dependency on the onshore team

- Automation reduced human intervention to less than 5%

About Altimetrik

Altimetrik is a data and digital engineering services company focused on delivering business outcomes with an agile, product-oriented approach. Our digital business methodology provides a blueprint to develop, scale, and launch new products to market faster. Our team of 5,500+ practitioners with software, data, cloud engineering skills help create a culture of innovation and agility that optimizes team performance, modernizes technology, and builds new business models. As a strategic partner and catalyst, Altimetrik quickly delivers results without disruption to the business.

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