


TRENDENCE
Beyond Possible

 **databricks**



A Data & AI Collective Driving Last-mile Impact for Industrial Organizations

Modern Architects of Data Modernization
and AI Innovation 

About Tredence

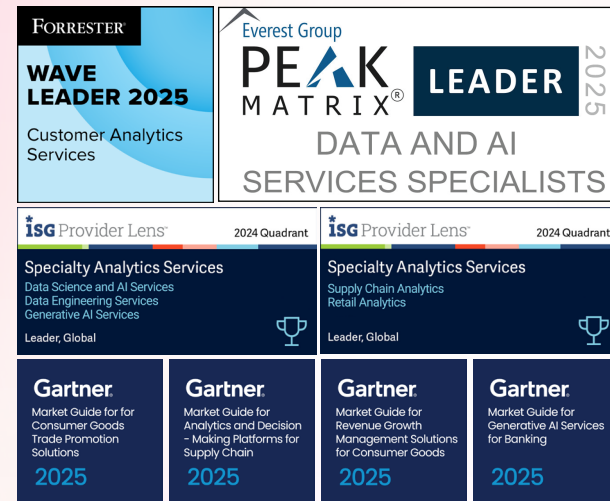
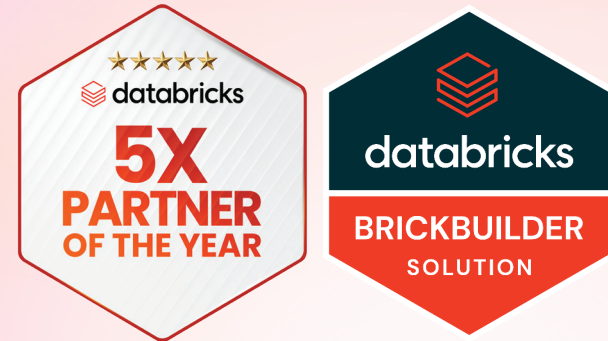
Tredence at a Glance

- **Founded:** 2013 | HQ: San Jose | 3000+ Employees | 12 Offices | 5 Countries
- **Founders:** Shub Bhowmick (CEO), Shashank Dubey (CRO), Sumit Mehra (CTO)
- **Strategic AI partner:** 50+ Fortune 500 companies across multiple verticals

Why Tredence?

- **Deep domain expertise:** Steeped in industry and domain processes, our teams deliver data and AI solutions that deliver outsized business impact.
- **Speeding time to value with AI accelerators:** Offering 150+ ready-to-deploy accelerators that clients can adopt as their own, reducing time to value by 50%.
- **Deep investment in innovation:** Investing 10% of our revenue in developing advanced AI and generative AI (GenAI) capabilities, so that we can help our clients scale new solutions across their businesses.
- **Last-mile AI approach:** Combining expertise, innovation, and partnerships to tackle data and AI challenges—proven by a 94% NPS across 1,000+ projects.

Industry Recognitions



Tredence x Databricks: Better Together

Our Vision

Tredence recognizes Databricks as our most valuable strategic partner, delivering a significant portion of our partner-associated revenue both today and in the foreseeable future.

With aggressive growth goals ahead, Tredence firmly believes that neither organization can achieve market-scale dominance without the other.

With this vision, we are proud to unveil “Tredence x Databricks: Better Together,” a strategic initiative framed by a series of interwoven joint industry solutions, acceleration in capability building, marketing and go-to-market motions designed to drive market leadership, growth and business value to our customers.

Together, we’re shaping the AI-driven future, where innovation and insights push enterprises beyond what’s possible so that they can grow and stay ahead of the curve. This collaboration is already driving measurable success across industries, as demonstrated by:



140+

Use Cases



75+

Joint Customers



20+

Industry Thought
Leadership Assets



10+

Brickbuilder
Solutions



600+

Individual DBX
Tech-Certified
Resources



20+

Databricks
Champions



Tredence x Databricks: The AI Core for Industrial Transformation

At Tredence, we help industrial organizations envision their data strategy and build AI-powered decision intelligence engines that unlock measurable business impact—across manufacturing, operations, and supply chains. Our mission is to become the most indispensable AI and analytics partner for global industrial enterprises.

Tredence & Databricks: Industrials AI at Scale



Accelerate AI Innovation with Proven Domain and Technical Expertise: Combine Tredence's deep industrial domain knowledge with Databricks' scalable ML platform to rapidly design, deploy, and operationalize AI/ML models across global manufacturing footprints.



Unlock Unified Data Intelligence: Seamlessly integrate OT, SAP, sensor and data from into a single Lakehouse to fuel real-time visibility, predictive maintenance, and quality optimization across industrial operations.



Accelerators Specific to Industrial Vertical: Pre-built models and frameworks tuned for asset-heavy environments to cut time-to-value by 50% e.g. Manufacturing.Atom.ai, Supply Chain Control Tower (also with Agentic AI), Smart Manufacturing Command Center, T-Discoverer, T-Ingestor, T-SAP Accelerator, Cloud Eye, DQuest, Sancus.



Drive ROI from Edge to Enterprise: Deliver use cases—from factory floor anomaly detection to enterprise-wide supply chain forecasting—powered by Agentic AI and enabled through an open, secure platform built for scale, governance, and cross-functional collaboration.

Powering the Next Leap in Industrial Transformation with AI

Driving Higher Performance, Lower Cost, and Speed to Insight through Pre-Built Accelerators

Our Offerings:



Migrate to Modernize: Tredence empowers industrial enterprises to fast-track data modernization with Databricks-certified accelerators, domain-specific models, and AI-driven tools—streamlining migration, improving data quality, and delivering faster insights with lower costs and higher performance.



Supply Chain Management: Tredence enables intelligent, resilient supply chains with AI-powered solutions. From demand forecasting and scenario planning to predictive risk management and inventory optimization, we help businesses gain end-to-end visibility, reduce disruptions, and improve supply chain performance at scale.



Smart Manufacturing: Tredence empowers manufacturers with AI-driven solutions to boost productivity, quality, and agility. Our accelerators support real-time decisions across maintenance, scheduling, forecasting, and more—enhancing OEE, traceability, and transforming the manufacturing value chain end-to-end.



Analytics with SAP Databricks on SAP Business Data Cloud (BDC): Unlock advanced analytics and AI on SAP data with SAP Databricks in SAP Business Data Cloud (BDC). Tredence helps seamlessly combine SAP and non-SAP data to drive intelligent insights, real-time reporting, and scalable machine learning across your enterprise.

Transforming Industries with AI & Data

We've delivered **140+ AI-powered use cases**—Here's a curated selection of transformative success stories that showcase real-world impact and business growth.

EXPLORE THE POSSIBILITIES!

TREDENCE
Beyond Possible

databricks

Better Together



Predicting sheet quality and optimizing rolling processes for an aluminum manufacturer

Developing an ML-based solution that predicts the optimal rolling machine settings to produce high-quality aluminum sheets

Challenge

The world's largest aluminum company sought to develop predictive intelligence to reduce quality issues and prevent product waste that harmed the customer experience.

Its challenges included:

- **Variations in raw material properties:** Requiring manual adjustment of rolling parameters, such as speed, torque, and force, to produce high-quality sheets
- **A large number of material and product parameters:** Creating the potential for errors due to manual processes
- **Manual calculations:** Leading to errors and quality issues

Solution

Tredence and Databricks partnered to develop a solution using Azure Databricks:

- **Deploying edge-based IoT services:** Extracting product and machine data from an on-premises historian
- **Developing stream and batch pipelines:** Spanning edge to cloud
- **Building and validating predictive models:** Addressing quality issues
- **Deploying predictive models at the plant edge:** Enabling low-latency insights, which were integrated into the human-machine interface

Business Impact

 **23% reduction**
In production stoppages

 **17% decrease**
In work-in-progress scrap

 **7% increase**
In product quality

Building an GenAI/LLM-powered chatbot for an integrated resources management leader

Equipping business owners with an intelligent Q&A system that responds with answers or automatically routes queries to SMEs for business updates or reporting



Challenge

A diversified conglomerate sought to build a centralized intelligence platform to empower multiple business units with rapid access to insights and SME expertise. However challenges included:

- **Siloed systems:** Struggling to integrate multiple domains into a single platform for seamless, cross-BU querying
- **Inefficient SME routing:** Lacking a clear mechanism to ensure queries reached the appropriate subject matter experts
- **Delayed insights:** Experiencing long turnaround times to receive responses, impacting agility
- **Dashboard dependency:** Relying heavily on static dashboards, which limited self-service analytics and on-demand decision-making

Solution


Tredence and Databricks partnered to develop an agentic AI-based chatbot solution using Azure OpenAI and Databricks services such as MLflow, Unity Catalog, Notebooks, Workflows, Delta Tables, Model Serving, and a Databricks vector database.

- **Extracting information:** Spanning historical data, business documents, rules, and more
- **Creating a GenAI retrieval augmented generation (RAG)-based chatbot system:** Classifying questions versus statements, predicting domains, recognizing and treating abbreviations, and extracting records from data
- **Blending classical ML and large language models:** Making the system available via multiple channels and using LLMOps to improve model accuracy

Business Impact

 **60%-80%**
Reduction in time to insight

 **30-50%**
Reduction in manual reporting costs

 **5X**
Democratizing data insights with 5x increase in query volumes

 Unlocking predictive, prescriptive and diagnostic intelligence

Optimizing process parameters with ML to improve product quality for a chemicals company

Providing real-time visibility into lithium hydroxide (LiOH) product consistency and quality, while minimizing zinc and carbonite impurities

Challenge

A global specialty chemicals company aimed to enhance the quality and consistency of LiOH production by leveraging data-driven insights for process optimization.

The client's challenges included:

- **Complex process variables:** Experiencing difficulties in identifying optimal operating ranges across 500+ parameters affecting product quality
- **Data quality issues:** Ensuring data accuracy, addressing missing values, and modeling non-linear interactions in a complex production environment
- **Operational alignment:** Balancing optimized recommendations with real-world plant constraints, regulatory compliance, and production stability

Solution

Tredence and Databricks partnered to develop a solution leveraging Azure Databricks services, including MLflow, Unity Catalog, Notebooks, Workflows, Delta Tables, and Dashboards.

- **Building ML models:** Predicting impurities and understanding the process parameters impacting their presence
- **Devising a genetic optimization algorithm:** Minimizing predicted impurities in LiOH manufacturing and identify optimal values for process parameters
- **Developing a visual dashboard:** Using sensitivity plots and line charts to understand the impact of the optimization engine and prediction algorithm

Business Impact



~60% improvement

In the accuracy of the R2 score for CO3



~20% improvement

In the accuracy of the R2 score for zinc

Improving fire safety efficiency with ML for a large building technologies company

Building a data foundation and advanced analytics to improve visibility and predict fire safety risks

Challenge

A global building technologies leader aimed to enhance emergency response effectiveness and safety in building incident management.

The client's challenges included:

- **Limited alert capabilities:** Providing first responders with only basic alarms, resulting in inefficient rescue operations and increased losses
- **Underutilized data:** Experiencing difficulties leveraging vast building and fire incident data to improve rescue planning, maintain compliance, and enhance stakeholder communication

Solution

Tredence partnered with Microsoft Azure and Databricks to develop a solution using services such as Delta Tables, Azure Data Factory, and Notebooks:

- **Developing stream and batch pipelines:** Integrating data from fire systems and customers
- **Building a comprehensive asset data model:** Leveraging a central data lake to enable user KPI dashboards and advanced analytics use cases
- **Developing real-time dashboards:** Enabling fire system health and status monitoring
- **Building incident severity and false prediction models:** Empowering first responders to make data-driven decisions

Business Impact

 **90%**
Improved visibility into fire risk factors

 **~15%**
Improved efficiency

 **~12%**
Reduced false positives

 **30%**
Accelerated response speed to fire risks

Implementing a data governance solution for an aluminum rolling and recycling company

Enabling a scalable and better data governance solution for objects outside of Unity Catalog by migrating them to Unity Catalog

Challenge

The aluminum company sought to improve governance to reduce data risks, enhance data quality, and scale processes.

Its challenges included:

- Difficulties tracking ownership and lineage for multiple workspaces
- Managing permissions tied to individual workspaces, leading to inconsistency
- An absence of centralized access controls across all workspace objects

Solution


Tredence and Databricks partnered to develop a solution using Databricks services such as Unity Catalog and Delta Tables:

- **Developing a framework:** Handling the migration of these objects from outside of Unity Catalog to Unity Catalog
- **Building a framework:** Tracking code changes in the notebooks and migrating clusters and related objects
- **Providing technical oversight:** Enhancing outcomes for ongoing data engineering implementations related to data curation, data transformation, and object validation

Business Impact

 **50% reduction**
in maintaining workspaces

 **60% reduction**
in maintaining access controls for workspaces


Improved data quality measures with an automated framework and dashboarding accuracy

Streamlining demand forecasting and inventory insights for a US auto retail services company

Enabling predictive analytics and real-time inventory visibility by integrating SAP and distributor data

Challenge

The company sought to improve inventory visibility and optimize supply chain responsiveness across its retail and distribution network. The firm experienced:

- **Limited inventory insights:** Lacking the ability to accurately monitor safety stock levels or assess out-of-stock risks in real-time
- **Siloed data systems:** Limiting end-to-end visibility due to disconnected data across SAP and distributor platforms
- **Manual planning processes:** Reducing ability due to the need to use manual processes for forecasting and inventory planning
- **Reactive decision-making:** Delaying supply chain actions and creating inefficiencies due to a lack of predictive insights

Solution

Tredence leveraged Databricks to build a data lake with bronze, silver, and gold layers for data processing. The refined data was then used to build interactive Power BI dashboards for business insights.

- **Developing ETL pipelines:** Using Databricks for seamless integration of SAP and distributor data
- **Implementing predictive models:** Enabling accurate demand forecasting and inventory optimization
- **Creating interactive Power BI dashboards:** Moving inventory monitoring into real-time

Business Impact

 **~10%**
In forecasting accuracy

 **~7%**
In the inventory turnover ratio

Enabling inventory visibility and replenishment for an equipment distribution and services company

Building a unified inventory management platform to optimize replenishment and reduce fulfillment costs

Challenge

The company sought to transform its supply chain operations by improving visibility, inventory accuracy, and proactive decision-making. The firm struggled with:

- **Fragmented operations:** Using a disconnected and reactive supply chain process limited coordination across sites and functions
- **Inefficient inventory planning:** Relying on uniform min-max policies and manual forecasting led to frequent overstock and stockout issues
- **Lack of real-time visibility:** Lacking a stock-keeping unit (SKU)-level or location-level view of inventory on-hand, coverage, or aging harmed planning accuracy
- **No proactive alerting:** Without intelligent notifications for out-of-stock risks, excess inventory, or reorder thresholds, the company lost sales and product waste

Solution

Tredence and Databricks partnered to develop a solution leveraging Azure Databricks services, including Unity Catalog, Notebooks, Workflows, and Dashboards.

- **Developing unified inventory visibility:** Creating SKU-level views of on-hand, coverage, and inventory aging
- **Enabling alerts and recommendations:** Alerting on out-of-stocks, below reorder points/safety stock, and excess inventory, with sales loss estimates
- **Implementing a dynamic replenishment engine:** Providing demand netting logic and reorder date/quantity recommendations
- **Deploying an advanced policy engine:** Enabling SKU segmentation based on the coefficient of variation and profit; auto-selection of best-fit replenishment policy (Ss, TS, QR)

Business Impact



5% improvement

In the inventory turnover ratio



20% reduction

In lost sales due to out-of-stocks



95%+

SKU service level for top SKUs



10% reduction

In inventory carrying costs

Enabling always-on support to eliminate recurring failures for a leading aluminum manufacturer

Building a unique, combined customer-centric DataOps and MLOps 24x7 support strategy for the business users across geographies

Challenge

A global leader in aluminum rolling and recycling needed to enhance the reliability and responsiveness of its data and analytics ecosystem to support critical business operations. The firm struggled with:

- **Operational delays:** Caused by a lag in reporting issues and maintaining Azure Databricks pipelines and ML models
- **High ticket volume:** The backlog of support requests, recurring job failures, and long response times impacted system performance
- **Root cause visibility:** An inability to deeply analyze recurring failures prevented long-term resolution
- **Data quality concerns:** Inconsistent data from multiple source systems impacted downstream analytics

Solution

Tredence implemented a cross-skilled DataOps and MLOps team with domain and business expertise to:

- Deliver unwavering 24/7 support while maintaining clear and effective communication with business stakeholders
- Reduce recurring tickets and optimize daily jobs to prevent resource bottlenecks
- Transition from incumbent and internal teams completed within the committed eight-week timeline, along with knowledge transfer.
- Provide 100% offshore L1, L2 and L3 support
- Create a single repository that documents all reported the failures and resolutions and is updated on a weekly basis
- Improve overall data quality

Business Impact

 **100%**
Adherence to response SLA

 **99%**
Adherence to resolution SLA

 **25-hour**
MTTR achieved, the lowest ever

 **8K/month**
Compute cost reduction

Identifying potential equipment usage fraud with ML for an oilfield services and equipment provider

Using ML algorithms to efficiently detect vehicle refueling transaction anomalies, enabling a proactive response

Challenge

A leading specialized oilfield services and equipment provider sought to improve operational efficiency and cost visibility across its production and logistics workflows.

The firm struggled with:

- **Manual anomaly detection:** Spending significant hours manually validating and flagging anomalous transactions across systems
- **Limited cost transparency:** Lacking real-time visibility into fuel consumption, a major component of its operating budget

Solution

Tredence and Databricks partnered to develop a solution using Azure Synapse Analytics, Azure Event Hubs, Azure Data Factory, and Databricks Unity Catalog-enabled workspaces, Notebooks, and Workflows:

- **Extracting transactional and historical asset data:** Spanning location, PID data, tank capacity, refueling data, usage, and more
- **Using feature engineering:** Baseline key factors such as minimum fuel level, idle time, fuel price, and more
- **Developing a clustering algorithm:** Grouping similar transactions and a heuristic model to detect anomalies and predict fraud probability

Business Impact



\$4M
Annual savings delivered



30%
More anomalies detected



~90%
Streamlined anomaly detection process

Developing a modern data platform for a global leader in specialty materials manufacturing

Modernizing the data landscape to standardize DataOps and business unit reporting while accelerating digital program development

Challenge

A specialty manufacturing firm faced obstacles in unifying data and driving consistent performance insights across business units. The company's challenges included:

- **Siloed data:** Multiple warehousing and reporting technologies caused redundant efforts and fragmented information
- **Manual reconciliation:** Limited ability to track performance with time-consuming, manual reporting processes
- **ERP complexity:** Difficulty establishing a standardized data framework due to multiple ERP systems
- **Weak data governance:** An absence of policies and processes undermined data trustworthiness
- **Lack of real-time insights:** Existing platforms constrained the ability to perform timely data analysis

Solution

Tredence and Databricks partnered to develop a solution:

- Implementing a centralized data platform on Azure leveraging SAP S/4HANA, SAP Landscape Transformation, Databricks Delta Live Tables, Databricks Unity Catalog, Azure Data Factory, and Power BI
- Onboarding sales and supply chain data to the new platform

Business Impact

 **99% uptime**
Of the Azure platform achieved

 **90% improvement**
In data availability

 **60% decrease**
In infrastructure-related incidents

Implementing data governance and MLOps to deploy scalable AI models for a transportation company

Enabling a robust, scalable data and AI foundation to support dynamic pricing, real-time insights, and AI-driven decision-making

Challenge

A leading transportation company sought to modernize its data and AI capabilities to accelerate model deployment and enhance decision-making.

The firm's challenges included:

- **Legacy system dependency:** Slowing down model deployment and integration
- **Fragmented data sources:** Impacting data quality and consistency
- **Modernization needs:** Driving a transition to a modern data stack to support MLOps and rapid AI scaling
- **Inconsistent model lifecycle management:** Causing inefficiencies and reducing trust in AI-driven decisions

Solution

Tredence and Databricks partnered to develop a solution using Databricks services such as MLflow, Unity Catalog, Feature Store, Delta Tables, Model Registry, and Model Serving.

- Providing technical oversight for ongoing data engineering implementations related to data curation and transformation
- Establishing measures to improve overall data quality management
- Deploying the dynamic pricing model in the Databricks environment
- Establishing a model monitoring system and MLOps best practices to enhance overall model lifecycle management

Business Impact



40%
Reduction in
model-building time



60%
Faster onboarding of
models to production



Out-of-the-box model
monitoring, drift detection, and
explainability capabilities



Increased data quality measures
using an automated framework
and dashboarding

Implementing modern data lake warehousing for an international real estate developer and manager

Building a modern Databricks Delta Lake warehousing solution to enable advanced analytics

Challenge

A leading real estate and property management firm set out to modernize its data ecosystem to enhance reporting efficiency, data transparency, and scalable analytics—empowering smarter decisions across processes.

Its challenges included:

- Limited ability to develop advanced analytics applications
- Challenges with scaling data processes
- Legacy systems dependencies that slowed down report development
- Difficulty tracking and maintaining data lineage

Solution

Tredence partnered with Databricks to develop a solution using services such as Delta Live Table and Unity Catalog:

- **Developing a metadata-driven framework:** Using Delta Live Tables to manage the extract-transform-load (ETL) process.
- **Implementing Unity Catalog for governance:** Providing centralized access control, auditing, lineage, and data discovery across all Azure Databricks workspaces.
- **Implementing data quality checks across layers:** Maintaining data quality
- **Implementing Databricks dashboards:** Enabling monitoring of the gold layer table's health.

Business Impact

 **40% reduction**
In maintaining the access controls for workspaces

 **~45% increase**
In the speed of data processing

Partner with Tredence and Databricks to:

- **Build a future-ready data foundation:** Accelerate your transition to a unified, governed, and real-time data foundation tailored for industrial manufacturing. Harness the power of Databricks Unity Catalog, Delta Sharing, and Tredence's Brickbuilder accelerators—purpose-built to drive plant-level visibility, predictive maintenance, and supply chain synchronization across complex manufacturing ecosystems.
- **Operationalize AI faster:** Unlock predictive insights across manufacturing, operations, and supply chains with GenAI and domain-specific ML models—reducing time to value by up to 50%.
- **Enable real-time decision intelligence:** Empower teams with streaming analytics and self-service tools that deliver granular, actionable insights across production, logistics, and customer operations.
- **Drive agility & cost efficiency:** Respond to disruptions swiftly and optimize outcomes with automated workflows, intelligent forecasting, and process orchestration.
- **Realize business value at scale:** Monetize data across the value chain—from predictive maintenance to supply chain command centers—delivering measurable improvements in OEE, inventory turns, and customer satisfaction.



**EXPLORE
DATABRICKS
CHAMPION**
INSIGHTS HERE



**SCHEDULE
1-TO-1
MEETINGS**

WITH OUR AI EXPERTS
AND EXPLORE WHAT'S
NEXT IN AI WITH TREDENCE



Voices of Our Customers & Partners

Tredence has been a trusted partner to our Data & Analytics team. Their deep expertise in cloud data platforms—along with their strong capabilities in building and supporting data engineering pipelines, DataOps, and MLOps frameworks—has led to significant improvements in our internal processes and delivered measurable cost savings. As we advance on our AI journey, Tredence continues to be our partner of choice to help us achieve our long-term strategic objectives.

— **Scott Sacha**

VP Enterprise Data and Analytics, Novelis



Tredence has demonstrated exceptional depth in industrial manufacturing and supply chain transformation. Their ability to combine deep domain expertise with technology expertise on data intelligence platform has consistently delivered measurable business value for our joint customers. Together, we're enabling manufacturers to unlock new efficiencies, improve resiliency, and accelerate their journey toward Industry 4.0.

— **Shiv Trisal**

Head of Industry GTM, Manufacturing, Databricks





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