

Data-Centric AI Market Forecasts to 2034 – Global Analysis By Solution Type (Data Preparation & Augmentation, Data Labeling & Annotation, Data Quality & Validation, Data Versioning & Management and Other Solution Types), Component, Deployment Mode, Technology, Application and By Geography

<https://marketpublishers.com/r/D61B907717A3EN.html>

Date: April 2026

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: D61B907717A3EN

Abstracts

According to Statistics MRC, the Global Data-Centric AI Market is accounted for \$18 billion in 2026 and is expected to reach \$110 billion by 2034 growing at a CAGR of 25% during the forecast period. Data-Centric AI focuses on improving the quality, consistency, and relevance of data used to train artificial intelligence models rather than solely optimizing algorithms. This approach emphasizes data collection, labeling, cleaning, augmentation, and governance to enhance model performance. By refining datasets, organizations can achieve more accurate, reliable, and scalable AI outcomes. Data-centric methodologies are particularly important in industries where data quality directly impacts decision-making. The growing complexity of AI systems and demand for trustworthy models are driving adoption of data-centric AI practices across various sectors.

Market Dynamics:

Driver:

Growing importance of high-quality data

AI models rely on clean, accurate, and well-structured datasets to deliver reliable outcomes. Enterprises are realizing that data quality often matters more than

algorithmic complexity in achieving performance gains. This shift is leading to greater investment in data curation, annotation, and validation tools. Industries such as healthcare, finance, and autonomous systems are especially dependent on trustworthy datasets. As AI adoption expands, the emphasis on data quality continues to be a primary driver of market growth.

Restraint:

Data collection and cleaning challenges

Gathering large-scale datasets across diverse sources is often complex and resource-intensive. Cleaning and standardizing data requires significant time, skilled labor, and advanced tools. Inconsistent formats, missing values, and duplicate records reduce efficiency and reliability. Smaller firms struggle to manage these processes due to limited resources. Despite technological advances, data preparation remains a bottleneck for AI deployment.

Opportunity:

Automated data curation technologies

AI-driven tools can streamline data preparation by detecting anomalies, correcting errors, and standardizing formats. Automation reduces manual effort and accelerates the availability of high-quality datasets. Enterprises are adopting these solutions to improve scalability and reduce costs. Partnerships between AI developers and data management firms are driving innovation in automated curation. As automation matures, it is expected to transform data-centric AI into a more efficient and accessible process.

Threat:

Data bias impacting AI reliability

Biased datasets can lead to inaccurate predictions and unfair outcomes in critical applications. Errors in representation compromise trust in AI systems across industries. Enterprises risk reputational damage and regulatory scrutiny if bias is not addressed. Ensuring diversity and fairness in datasets remains a major challenge. This threat underscores the need for robust data governance in AI development.

Covid-19 Impact:

The COVID-19 pandemic had a mixed impact on the data-centric AI market. Supply chain disruptions and workforce limitations slowed data collection and preparation projects. However, the surge in digital transformation boosted demand for AI applications, increasing the need for curated datasets. Remote work accelerated adoption of cloud-based data management platforms. Enterprises invested in automation to reduce dependency on manual processes. Overall, COVID-19 created short-term challenges but reinforced long-term momentum for data-centric AI.

The software platforms segment is expected to be the largest during the forecast period

The software platforms segment is expected to account for the largest market share during the forecast period owing to their critical role in managing, curating, and validating datasets for AI applications. Platforms provide end-to-end solutions for data preparation, annotation, and governance. Enterprises rely on these tools to ensure scalability and efficiency in AI projects. Continuous innovation in cloud-based and automated platforms strengthens adoption. Industries with complex data needs prioritize software platforms for reliability. With rising demand for high-quality data, this segment is expected to dominate the market.

The MLOps integration segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the MLOps integration segment is predicted to witness the highest growth rate as enterprises increasingly adopt integrated workflows to manage data pipelines and AI model deployment. MLOps ensures seamless collaboration between data engineers and AI developers. Integration of data-centric practices into MLOps improves model accuracy and reliability. Enterprises are investing in MLOps tools to reduce development cycles and enhance productivity. Partnerships between AI firms and cloud providers are accelerating adoption.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share supported by established technology firms, and high demand for curated datasets across industries. The U.S. leads with major players investing in data-centric AI platforms and services. Robust demand for AI in healthcare, finance, and autonomous systems strengthens regional leadership. Government-backed initiatives in

AI R&D further accelerate adoption. Partnerships between enterprises and startups drive innovation in data management. North America's dominance is expected to persist throughout the forecast period.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR due to expanding AI ecosystems, and rising investments in data-centric technologies. Countries such as China, India, and South Korea are deploying large-scale data projects to support AI development. Regional startups are entering the market with innovative solutions. Expanding demand for AI in e-commerce, healthcare, and smart cities fuels adoption. Government-backed programs supporting AI ecosystems further strengthen growth.

Key players in the market

Some of the key players in Data-Centric AI Market include Google LLC, Microsoft Corporation, Amazon Web Services, IBM Corporation, Snowflake Inc., Databricks, Alteryx Inc., DataRobot, Domo Inc., Palantir Technologies, Cloudera Inc., SAS Institute, Teradata Corporation, Oracle Corporation, H2O.ai, Anaconda Inc. and C3.ai.

Key Developments:

In March 2025, AWS launched new data-centric AI services integrated with SageMaker. The innovation reinforced its competitiveness in cloud AI and strengthened adoption in generative workloads.

In January 2025, Google expanded Vertex AI with advanced data-centric tools for model retraining. The launch reinforced its leadership in cloud AI and strengthened adoption in enterprise workflows.

Solution Types Covered:

Data Preparation & Augmentation

Data Labeling & Annotation

Data Quality & Validation

Data Versioning & Management

Other Solution Types

Components Covered:

Software Platforms

Data Engineering Tools

AI Frameworks

Data Storage Systems

Cloud Infrastructure

Other Components

Deployment Modes Covered:

On-Premise

Cloud-Based

Technologies Covered:

Automated Data Cleaning

Active Learning

Data Augmentation Techniques

Data Version Control Systems

Other Technologies

Applications Covered:

Model Training Optimization

Data Pipeline Automation

AI Model Monitoring

Data Quality Improvement

MLOps Integration

Other Applications

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

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