+357 96 030922
info@marketpublishers.com

Global AI Framework Supply, Demand and Key Producers, 2026-2032

https://marketpublishers.com/r/GC29155C8C26EN.html
Date: November 2026
Pages: 107
Price: US$ 4,480.00 (Single User License)
ID: GC29155C8C26EN

Abstracts

The global AI Framework market size is expected to reach $ 7801 million by 2032, rising at a market growth of 12.0% CAGR during the forecast period (2026-2032).

AI Framework, as defined in this study, refers specifically to core deep learning framework software used to construct, train, optimize and execute neural-network models rather than to the broader universe of AI development platforms, cloud AI services or agent frameworks. The framework layer typically provides tensor computation, automatic differentiation, neural-network modules, optimizers, dynamic or static computation-graph execution, distributed training, hardware acceleration interfaces, model serialization and runtime capabilities, enabling developers to translate algorithms into executable workloads across CPUs, GPUs, NPUs and other accelerators. The confirmed product structure covers Dynamic Graph Frameworks, Static Graph Frameworks and Hybrid Graph Frameworks, while downstream use includes computer vision, natural language processing and large language models, recommendation and ranking, speech and audio AI, and scientific and industrial AI model development. The statistical scope is fixed at the core framework-software layer. Cloud AI platforms, MLOps platforms, foundation models, standalone inference engines, agent frameworks, AI chips, low-level acceleration libraries, distributed-training middleware built on top of another framework, consulting and implementation services are treated as adjacent upstream or downstream markets rather than as AI Framework products.

Key Findings

Dynamic and hybrid graph execution increasingly dominate mainstream framework

+357 96 030922
info@marketpublishers.com

development because developers require both programming flexibility and production optimization

Large language model training is accelerating demand for distributed execution compiler optimization mixed precision and memory-efficient framework architectures

PyTorch TensorFlow MindSpore PaddlePaddle and other ecosystems increasingly compete on hardware portability rather than basic neural-network functionality

Open-source governance remains a defining market characteristic making developer adoption ecosystem depth and hardware support as important as direct framework revenue

The confirmed competitive landscape spans Google PyTorch Foundation Huawei Baidu Apple Alibaba OneFlow Konduit and Sony

Market Trends

The AI Framework market is shifting from general-purpose neural-network APIs toward integrated software stacks optimized for large models, heterogeneous accelerators and end-to-end model execution. Dynamic eager execution remains important for research productivity, but modern frameworks increasingly combine eager programming with graph capture, compilation and optimized runtime execution, reducing the historical distinction between dynamic and static frameworks. PaddlePaddle's current generation explicitly emphasizes unified dynamic/static execution and automatic parallelism, while PyTorch continues to strengthen torch.compile, Inductor and graph-based acceleration. This makes Hybrid Graph Frameworks increasingly important because users want Python-like development flexibility without sacrificing production performance.

A second structural trend is the movement of framework differentiation toward distributed training, memory management, low-precision computation and hardware abstraction. Large language models and multimodal models require framework software to coordinate hundreds or thousands of accelerators, optimize communication and memory, support FP8 or lower-precision formats, and adapt efficiently across CUDA, ROCm, XPU, Ascend, Apple Silicon and other architectures. PyTorch 2.13 and 2.14 strengthened distributed communications, fault tolerance and compiler backends; MindSpore 2.10 enhanced hypernode parallelism and graph-kernel fusion; MLX has expanded beyond its original Apple Silicon focus with broader CUDA-related development; and MNN continues to extend mobile GPU and NPU backends. As a

+357 96 030922
info@marketpublishers.com

result, framework competitiveness is increasingly determined by the combination of compiler technology, hardware ecosystem breadth, large-model scalability and deployment efficiency.

Latest Developments / News

Framework development accelerated during 2026. PyTorch Foundation released PyTorch 2.10 in January, 2.11 in March, 2.12 in May, 2.13 in July and 2.14 on September 2, reflecting its stated move toward an approximately two-month release cadence. PyTorch 2.14 further strengthened Inductor, distributed communication, fault tolerance and Apple Silicon linear-algebra capabilities, following earlier 2026 releases that added distributed collectives, expanded graph capture, quantized export and memory optimizations. MindSpore 2.10, released on July 30, 2026, upgraded hypernode affinity parallelism, asynchronous collective initialization and Ascend-oriented graph-kernel fusion, reinforcing its focus on large-scale training on Ascend infrastructure.

PaddlePaddle's 3.x generation has continued to emphasize unified dynamic/static graphs, automatic parallelism and integrated large-model training and inference, while its current repository identifies the 3.3 series as the latest generation. Alibaba's MNN released version 3.6.1 in July 2026 with a Qualcomm Hexagon NPU backend, Transformer fusion improvements and additional quantization capabilities, strengthening the framework's position in on-device LLM and Edge AI workloads. Apple MLX also continued rapid version releases during 2026, with development expanding distributed execution, CUDA functionality and quantized model operations. These developments show that current framework innovation is concentrated around large-model scalability, accelerator portability, compiler performance and edge inference rather than basic neural-network APIs.

Market Dynamics

Drivers

Rapid adoption of generative AI, multimodal models and large-scale recommendation systems is expanding the technical requirements placed on AI Frameworks. Model developers increasingly need automatic differentiation, distributed training, mixed precision, checkpointing, communication optimization and hardware-specific compilation to operate efficiently at large scale. The transition from single-GPU model development

+357 96 030922
info@marketpublishers.com

to multi-node training therefore raises the strategic importance of the framework layer because the framework determines how effectively compute resources, memory and communication bandwidth are utilized. The same trend is visible outside large language models: computer vision, speech, industrial AI and scientific computing increasingly require accelerator-aware execution and reproducible deployment across research and production environments.

Hardware diversification provides a second demand driver. AI workloads now run across NVIDIA GPUs, AMD GPUs, Intel accelerators, Huawei Ascend processors, Apple Silicon, Qualcomm NPUs and other specialized devices. Framework providers that can abstract hardware differences while preserving performance reduce software migration costs for developers and enterprises. PyTorch 2.14 expanded Apple Silicon and distributed backend capabilities, MindSpore continues to optimize for Ascend, PaddlePaddle emphasizes broad hardware adaptation, and MNN is expanding mobile and embedded accelerator support. These developments reinforce the role of framework software as the bridge between rapidly evolving model architectures and increasingly heterogeneous computing infrastructure.

Restraints

A major restraint is that leading AI Frameworks are largely open-source, making direct software monetization difficult to separate from surrounding cloud, hardware and technical-service revenue. Developer adoption can be extremely high even where direct framework license revenue is limited, which weakens the usefulness of conventional software market indicators such as paid seats or average license price. Enterprises often obtain TensorFlow, PyTorch, MindSpore, PaddlePaddle or MLX without paying for the core framework and instead spend on GPUs, cloud computing, model development, engineering services and managed AI platforms. Consequently, framework influence and framework revenue can diverge substantially.

Compatibility and migration costs also constrain framework switching. Enterprises accumulate model code, custom operators, deployment pipelines, optimized kernels and trained engineering teams around existing ecosystems. Although frameworks increasingly provide compatibility layers, moving large production systems between ecosystems can create performance, validation and maintenance risks. Rapid technical change creates an additional burden: APIs, compiler stacks and preferred deployment approaches can change quickly, forcing developers to maintain compatibility across versions. Sony's NNabla, for example, remains available as a deep learning framework

+357 96 030922
info@marketpublishers.com

but its official repository states that the project is in a maintenance phase rather than active feature development, illustrating how framework ecosystems can mature or lose momentum over time.

Opportunities

The largest opportunity is the integration of framework software with large-model training, post-training and inference workflows. Reinforcement learning, mixture-of-experts architectures, long-context models and multimodal systems create new demand for efficient attention implementations, distributed communication, memory optimization and compiler technology. PyTorch's recent releases emphasize distributed training, attention performance and numerical debugging, while PaddlePaddle and MindSpore are strengthening automatic parallelism and large-scale execution. Framework providers that simplify large-model scaling while retaining familiar APIs can attract developers from more fragmented infrastructure stacks.

Edge AI is another important opportunity. Apple MLX is designed around efficient machine-learning execution and increasingly supports local LLM workflows, while Alibaba MNN is expanding mobile, Qualcomm NPU, Vulkan, Metal and other device backends. Apple demonstrated local LLM inference using MLX on Apple Silicon at ICLR 2026, while MNN's 2026 releases expanded Hexagon NPU and multimodal/LLM support. As privacy, latency and device-level AI become more important, framework competition will increasingly extend beyond datacenter training into PCs, smartphones, industrial edge devices and embedded systems.

Challenges

The framework market faces strong ecosystem concentration and high switching barriers. Developers tend to select platforms according to available model implementations, documentation, hardware optimization, community libraries and talent availability rather than only benchmark performance. This creates a reinforcing network effect around leading ecosystems and makes it difficult for smaller frameworks to expand globally even when they possess differentiated technical capabilities. Regional frameworks therefore need either strong hardware integration, distinctive distributed-computing capabilities, domestic ecosystem support or specialized deployment advantages to remain competitive.

Another challenge is maintaining performance across rapidly changing hardware and

+357 96 030922
info@marketpublishers.com

model architectures. Supporting new GPU generations, NPUs, low-precision formats, attention mechanisms, mixture-of-experts models and compiler backends requires continuous engineering investment. Framework maintainers must simultaneously preserve backward compatibility and API stability. Security, reproducibility and numerical correctness are also becoming more important as AI moves into production-critical applications. PyTorch's recent releases specifically expanded numerical debugging, deterministic execution and fault-tolerant distributed computing, demonstrating that production reliability is now a core framework requirement rather than a secondary feature.

Value Chain Analysis

The upstream layer of the AI Framework value chain consists primarily of computing hardware, accelerator software and foundational software infrastructure. CPUs, GPUs, NPUs and specialized AI accelerators provide compute resources, while device drivers, CUDA, ROCm, Ascend software stacks, compiler toolchains and communication libraries expose these resources to higher software layers. Cloud infrastructure supplies elastic clusters, storage and high-speed networking. Changes in accelerator architectures directly affect framework development because operators, compilers, memory managers and distributed runtimes must be continuously optimized for new hardware.

The core value-creation layer consists of framework architecture, tensor libraries, automatic differentiation, computation-graph execution, compilers, optimizers, distributed training and runtime software. The confirmed competitive database includes Google LLC, PyTorch Foundation, Huawei Technologies Co., Ltd., Baidu, Inc., Apple Inc., Alibaba Group Holding Limited, OneFlow Inc., Konduit K.K. and Sony Group Corporation. Much of this layer is open-source, so economic value is frequently captured indirectly through cloud usage, accelerator sales, enterprise platforms, ecosystem lock-in and downstream AI services rather than through core framework licenses alone. Downstream users include model developers, AI laboratories, cloud providers, software companies, financial institutions, manufacturers, healthcare organizations and research institutions. Framework adoption influences which hardware, libraries, pretrained models and deployment tools these users subsequently select, giving major framework ecosystems strategic value that extends beyond direct software revenue.

Segment Insights

+357 96 030922
info@marketpublishers.com

Dynamic Graph Frameworks prioritize imperative execution and developer flexibility, allowing operations to execute as they are defined and making debugging and experimentation intuitive. This approach became particularly influential through PyTorch and shaped modern developer expectations for Python-first model development. Dynamic execution remains highly attractive for research, rapid prototyping and evolving large-model architectures because model behavior can be inspected and modified directly during execution.

Static Graph Frameworks construct or compile the computation graph before execution, enabling aggressive optimization, deployment planning and predictable runtime behavior. Their relative role has changed as mainstream frameworks increasingly incorporate compilation technology without requiring developers to write purely static programs. Consequently, the strongest structural development is toward Hybrid Graph Frameworks, which combine eager or dynamic development with graph capture, ahead-of-time or just-in-time compilation and optimized runtime execution. The report's confirmed segmentation is Dynamic Graph Frameworks, Static Graph Frameworks and Hybrid Graph Frameworks. PaddlePaddle's unified dynamic/static design and PyTorch's torch.compile architecture illustrate this convergence. Over time, hybrid execution is likely to become increasingly important because it reconciles two historically competing requirements: research productivity and production efficiency.

Downstream Market Opportunities

Natural language processing and large language model development currently represent one of the most technologically demanding framework applications because training and serving large transformer and multimodal architectures require distributed execution, advanced attention kernels, low-precision computation and sophisticated memory management. This application is driving framework investment in compiler technology, parallel training and heterogeneous acceleration. Computer vision remains another broad foundation market, spanning image classification, object detection, segmentation, multimodal perception and industrial inspection, while recommendation and ranking systems remain strategically important in e-commerce, advertising, social platforms and content services.

Speech and audio AI continues to generate demand across automatic speech recognition, text-to-speech, audio generation and multimodal assistants. Scientific and industrial AI provides a differentiated opportunity because simulation, forecasting, physics-informed models and intelligent control require high-order differentiation, numerical stability and integration with engineering computing. PaddlePaddle

+357 96 030922
info@marketpublishers.com

specifically highlights high-order differentiation and scientific-computing functions within its newer framework generation. The report's confirmed downstream application structure covers computer vision, natural language processing and LLM development, recommendation and ranking, speech and audio AI, and scientific and industrial AI model development. Future incremental demand is expected to arise wherever enterprises move from isolated model experiments toward production-scale training and deployment across heterogeneous hardware.

Regional Insights

North America remains strategically important because several globally influential framework ecosystems originate there, including TensorFlow, PyTorch and Apple MLX, and because the region contains a dense concentration of hyperscale cloud providers, AI accelerator suppliers, foundation-model developers and research institutions. PyTorch's rapid 2026 release cadence and Apple's continuing MLX development demonstrate the depth of framework innovation associated with the region.

Asia-Pacific, particularly China, has developed a substantial alternative framework ecosystem. Huawei MindSpore, Baidu PaddlePaddle, Alibaba MNN and OneFlow cover datacenter training, distributed computation, domestic accelerator adaptation and edge deployment. MindSpore 2.10's Ascend-oriented optimization and PaddlePaddle's automatic parallelism and hardware adaptation demonstrate the importance of framework-hardware co-development in China. Japan retains a specialized presence through Sony's Neural Network Libraries and Konduit-supported Deeplearning4j activities, although NNabla has moved into maintenance mode. Europe has strong AI research and open-source participation but fewer globally dominant standalone deep-learning framework providers within the confirmed company database. Regional competition is therefore shaped less by simple software geography and more by relationships among frameworks, accelerator ecosystems, cloud infrastructure, developer communities and sovereign AI strategies.

Competitive Landscape Analysis

The AI Framework market is characterized by a small number of globally influential ecosystems and a broader group of regional or hardware-specialized frameworks. The confirmed competitive set consists of Google LLC, PyTorch Foundation, Huawei Technologies Co., Ltd., Baidu, Inc., Apple Inc., Alibaba Group Holding Limited, OneFlow

+357 96 030922
info@marketpublishers.com

Inc., Konduit K.K. and Sony Group Corporation. Google combines TensorFlow with JAX-related research capabilities, while PyTorch Foundation governs an ecosystem that has become highly influential in modern research and large-model development. Huawei's MindSpore and Baidu's PaddlePaddle compete through integrated framework, hardware and domestic developer ecosystems; Apple MLX emphasizes efficient local machine learning; Alibaba MNN focuses strongly on edge and on-device AI; OneFlow differentiates through distributed execution; Deeplearning4j retains a Java/JVM-oriented position; and Sony NNabla is now primarily maintained rather than aggressively expanded.

Recent framework updates are strengthening competitive differentiation. PyTorch's accelerated release cycle and investment in Inductor, distributed communications and fault tolerance reinforce its large-model ecosystem, while MindSpore is deepening Ascend affinity and distributed scalability. MNN's Hexagon NPU support and MLX's expanding CUDA-related functionality illustrate growing competition around hardware portability and edge AI. Future competition will center on developer experience, compiler performance, distributed-training scalability, low-precision computing, hardware compatibility, model ecosystem depth, production reliability and the ability to bridge datacenter and edge deployment. Because most leading frameworks are open source, competitive position should be assessed through technical adoption, ecosystem influence and deployment relevance rather than direct framework software revenue alone.

Report Scope

This report studies the global AI Framework demand, key companies, and key regions.

This report is a detailed and comprehensive analysis of the world market for AI Framework, and provides market size (US$ million) and Year-over-Year (YoY) growth, considering 2025 as the base year. This report explores demand trends and competition, as well as details the characteristics of AI Framework that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global AI Framework total market, 2021-2032, (USD Million)

+357 96 030922
info@marketpublishers.com

Global AI Framework total market by region & country, CAGR, 2021-2032, (USD Million)

U.S. VS China: AI Framework total market, key domestic companies, and share, (USD Million)

Global AI Framework revenue by player, revenue and market share 2021-2026, (USD Million)

Global AI Framework total market by Computation Graph Execution Types, CAGR, 2021-2032, (USD Million)

Global AI Framework total market by Application, CAGR, 2021-2032, (USD Million)

This report profiles major players in the global AI Framework market based on the following parameters - company overview, revenue, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Google LLC, PyTorch Foundation, Huawei Technologies Co., Ltd., Baidu, Inc., Apple Inc., Alibaba Group Holding Limited, OneFlow Inc., Konduit K.K., Sony Group Corporation, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Stakeholders would have ease in decision-making through various strategy matrices used in analyzing the world AI Framework market

Detailed Segmentation:

Each section contains quantitative market data including market by value (US$ Millions), by player, by regions, by Computation Graph Execution Types, and by Application. Data is given for the years 2021-2032 by year with 2025 as the base year, 2026 as the estimate year, and 2027-2032 as the forecast year.

Global AI Framework Market, By Region:

+357 96 030922
info@marketpublishers.com

United States

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

Market Segmentation

Global AI Framework Market, Segmentation by Computation Graph Execution Types:

Dynamic Graph Frameworks

Static Graph Frameworks

Hybrid Graph Frameworks

Global AI Framework Market, Segmentation by Minimum Supported Compute Precision Types:

32-bit Precision Frameworks (Minimum Supported Precision: 32-bit)

16-bit Mixed-Precision Frameworks (Minimum Supported Precision: 16-bit)

8-bit and Lower Precision Frameworks (Minimum Supported Precision: ?8-bit)

+357 96 030922
info@marketpublishers.com

Global AI Framework Market, Segmentation by Primary Programming Interface Types:

Python-First Frameworks

Multi-Language Frameworks

Java/JVM-Centric Frameworks

Global AI Framework Market, Segmentation by Application:

Computer Vision Model Development (Image Classification, Detection, and Segmentation)

Natural Language Processing and Large Language Model Development

Recommendation and Ranking Model Development

Speech and Audio AI Model Development (Recognition, Synthesis, and Processing)

Scientific and Industrial AI Model Development (Simulation, Prediction, and Intelligent Control)

Companies Profiled:

Google LLC

PyTorch Foundation

Huawei Technologies Co., Ltd.

Baidu, Inc.

Apple Inc.

+357 96 030922
info@marketpublishers.com

Alibaba Group Holding Limited

OneFlow Inc.

Konduit K.K.

Sony Group Corporation

Key Questions Answered

1. How big is the global AI Framework market?
2. What is the demand of the global AI Framework market?
3. What is the year over year growth of the global AI Framework market?
4. What is the total value of the global AI Framework market?
5. Who are the Major Players in the global AI Framework market?
6. What are the growth factors driving the market demand?

+357 96 030922
info@marketpublishers.com

Contents

1 SUPPLY SUMMARY

1.1 AI Framework Introduction
1.2 World AI Framework Market Size & Forecast (2021 & 2025 & 2032)
1.3 World AI Framework Total Market by Region (by Headquarter Location)
  1.3.1 World AI Framework Market Size by Region (2021-2032), (by Headquarter Location)
  1.3.2 United States Based Company AI Framework Revenue (2021-2032)
  1.3.3 China Based Company AI Framework Revenue (2021-2032)
  1.3.4 Europe Based Company AI Framework Revenue (2021-2032)
  1.3.5 Japan Based Company AI Framework Revenue (2021-2032)
  1.3.6 South Korea Based Company AI Framework Revenue (2021-2032)
  1.3.7 ASEAN Based Company AI Framework Revenue (2021-2032)
  1.3.8 India Based Company AI Framework Revenue (2021-2032)
1.4 Market Drivers, Restraints and Trends
  1.4.1 AI Framework Market Drivers
  1.4.2 Factors Affecting Demand
  1.4.3 Major Market Trends

2 DEMAND SUMMARY

2.1 World AI Framework Consumption Value (2021-2032)
2.2 World AI Framework Consumption Value by Region
  2.2.1 World AI Framework Consumption Value by Region (2021-2026)
  2.2.2 World AI Framework Consumption Value Forecast by Region (2027-2032)
2.3 United States AI Framework Consumption Value (2021-2032)
2.4 China AI Framework Consumption Value (2021-2032)
2.5 Europe AI Framework Consumption Value (2021-2032)
2.6 Japan AI Framework Consumption Value (2021-2032)
2.7 South Korea AI Framework Consumption Value (2021-2032)
2.8 ASEAN AI Framework Consumption Value (2021-2032)
2.9 India AI Framework Consumption Value (2021-2032)

3 WORLD AI FRAMEWORK COMPANIES COMPETITIVE ANALYSIS

3.1 World AI Framework Revenue by Player (2021-2026)
3.2 Industry Rank and Concentration Rate (CR)

+357 96 030922
info@marketpublishers.com

3.2.1 Global AI Framework Industry Rank of Major Players
3.2.2 Global Concentration Ratios (CR4) for AI Framework in 2025
3.2.3 Global Concentration Ratios (CR8) for AI Framework in 2025
3.3 AI Framework Company Evaluation Quadrant
3.4 AI Framework Market: Overall Company Footprint Analysis
3.4.1 AI Framework Market: Region Footprint
3.4.2 AI Framework Market: Company Product Type Footprint
3.4.3 AI Framework Market: Company Product Application Footprint
3.5 Competitive Environment
3.5.1 Historical Structure of the Industry
3.5.2 Barriers of Market Entry
3.5.3 Factors of Competition
3.6 Mergers & Acquisitions Activity

4 UNITED STATES VS CHINA VS REST OF WORLD (BY HEADQUARTER LOCATION)

4.1 United States VS China: AI Framework Revenue Comparison (by Headquarter Location)
4.1.1 United States VS China: AI Framework Revenue Comparison (2021 & 2025 & 2032) (by Headquarter Location)
4.1.2 United States VS China: AI Framework Revenue Market Share Comparison (2021 & 2025 & 2032)
4.2 United States Based Companies VS China Based Companies: AI Framework Consumption Value Comparison
4.2.1 United States VS China: AI Framework Consumption Value Comparison (2021 & 2025 & 2032)
4.2.2 United States VS China: AI Framework Consumption Value Market Share Comparison (2021 & 2025 & 2032)
4.3 United States Based AI Framework Companies and Market Share, 2021-2026
4.3.1 United States Based AI Framework Companies, Headquarters (States, Country)
4.3.2 United States Based Companies AI Framework Revenue, (2021-2026)
4.4 China Based Companies AI Framework Revenue and Market Share, 2021-2026
4.4.1 China Based AI Framework Companies, Company Headquarters (Province, Country)
4.4.2 China Based Companies AI Framework Revenue, (2021-2026)
4.5 Rest of World Based AI Framework Companies and Market Share, 2021-2026
4.5.1 Rest of World Based AI Framework Companies, Headquarters (Province, Country)

+357 96 030922
info@marketpublishers.com

4.5.2 Rest of World Based Companies AI Framework Revenue (2021-2026)

5 MARKET ANALYSIS BY COMPUTATION GRAPH EXECUTION TYPES

5.1 World AI Framework Market Size Overview by Computation Graph Execution Types: 2021 VS 2025 VS 2032
5.2 Segment Introduction by Computation Graph Execution Types
5.2.1 Dynamic Graph Frameworks
5.2.2 Static Graph Frameworks
5.2.3 Hybrid Graph Frameworks
5.3 Market Segment by Computation Graph Execution Types
5.3.1 World AI Framework Market Size by Computation Graph Execution Types (2021-2026)
5.3.2 World AI Framework Market Size by Computation Graph Execution Types (2027-2032)
5.3.3 World AI Framework Market Size Market Share by Computation Graph Execution Types (2027-2032)

6 MARKET ANALYSIS BY MINIMUM SUPPORTED COMPUTE PRECISION TYPES

6.1 World AI Framework Market Size Overview by Minimum Supported Compute Precision Types: 2021 VS 2025 VS 2032
6.2 Segment Introduction by Minimum Supported Compute Precision Types
6.2.1 32-bit Precision Frameworks (Minimum Supported Precision: 32-bit)
6.2.2 16-bit Mixed-Precision Frameworks (Minimum Supported Precision: 16-bit)
6.2.3 8-bit and Lower Precision Frameworks (Minimum Supported Precision: ?8-bit)
6.3 Market Segment by Minimum Supported Compute Precision Types
6.3.1 World AI Framework Market Size by Minimum Supported Compute Precision Types (2021-2026)
6.3.2 World AI Framework Market Size by Minimum Supported Compute Precision Types (2027-2032)
6.3.3 World AI Framework Market Size Market Share by Minimum Supported Compute Precision Types (2027-2032)

7 MARKET ANALYSIS BY PRIMARY PROGRAMMING INTERFACE TYPES

7.1 World AI Framework Market Size Overview by Primary Programming Interface Types: 2021 VS 2025 VS 2032
7.2 Segment Introduction by Primary Programming Interface Types

+357 96 030922
info@marketpublishers.com

7.2.1 Python-First Frameworks
7.2.2 Multi-Language Frameworks
7.2.3 Java/JVM-Centric Frameworks
7.3 Market Segment by Primary Programming Interface Types
7.3.1 World AI Framework Market Size by Primary Programming Interface Types (2021-2026)
7.3.2 World AI Framework Market Size by Primary Programming Interface Types (2027-2032)
7.3.3 World AI Framework Market Size Market Share by Primary Programming Interface Types (2027-2032)

8 MARKET ANALYSIS BY APPLICATION

8.1 World AI Framework Market Size Overview by Application: 2021 VS 2025 VS 2032
8.2 Segment Introduction by Application
8.2.1 Computer Vision Model Development (Image Classification, Detection, and Segmentation)
8.2.2 Natural Language Processing and Large Language Model Development
8.2.3 Recommendation and Ranking Model Development
8.2.4 Speech and Audio AI Model Development (Recognition, Synthesis, and Processing)
8.2.5 Scientific and Industrial AI Model Development (Simulation, Prediction, and Intelligent Control)
8.3 Market Segment by Application
8.3.1 World AI Framework Market Size by Application (2021-2026)
8.3.2 World AI Framework Market Size by Application (2027-2032)
8.3.3 World AI Framework Market Size Market Share by Application (2021-2032)

9 COMPANY PROFILES

9.1 Google LLC
9.1.1 Google LLC Details
9.1.2 Google LLC Major Business
9.1.3 Google LLC AI Framework Product and Services
9.1.4 Google LLC AI Framework Revenue, Gross Margin and Market Share (2021-2026)
9.1.5 Google LLC Recent Developments/Updates
9.1.6 Google LLC Competitive Strengths & Weaknesses
9.2 PyTorch Foundation

+357 96 030922
info@marketpublishers.com

9.2.1 PyTorch Foundation Details
9.2.2 PyTorch Foundation Major Business
9.2.3 PyTorch Foundation AI Framework Product and Services
9.2.4 PyTorch Foundation AI Framework Revenue, Gross Margin and Market Share (2021-2026)
9.2.5 PyTorch Foundation Recent Developments/Updates
9.2.6 PyTorch Foundation Competitive Strengths & Weaknesses
9.3 Huawei Technologies Co., Ltd.
9.3.1 Huawei Technologies Co., Ltd. Details
9.3.2 Huawei Technologies Co., Ltd. Major Business
9.3.3 Huawei Technologies Co., Ltd. AI Framework Product and Services
9.3.4 Huawei Technologies Co., Ltd. AI Framework Revenue, Gross Margin and Market Share (2021-2026)
9.3.5 Huawei Technologies Co., Ltd. Recent Developments/Updates
9.3.6 Huawei Technologies Co., Ltd. Competitive Strengths & Weaknesses
9.4 Baidu, Inc.
9.4.1 Baidu, Inc. Details
9.4.2 Baidu, Inc. Major Business
9.4.3 Baidu, Inc. AI Framework Product and Services
9.4.4 Baidu, Inc. AI Framework Revenue, Gross Margin and Market Share (2021-2026)
9.4.5 Baidu, Inc. Recent Developments/Updates
9.4.6 Baidu, Inc. Competitive Strengths & Weaknesses
9.5 Apple Inc.
9.5.1 Apple Inc. Details
9.5.2 Apple Inc. Major Business
9.5.3 Apple Inc. AI Framework Product and Services
9.5.4 Apple Inc. AI Framework Revenue, Gross Margin and Market Share (2021-2026)
9.5.5 Apple Inc. Recent Developments/Updates
9.5.6 Apple Inc. Competitive Strengths & Weaknesses
9.6 Alibaba Group Holding Limited
9.6.1 Alibaba Group Holding Limited Details
9.6.2 Alibaba Group Holding Limited Major Business
9.6.3 Alibaba Group Holding Limited AI Framework Product and Services
9.6.4 Alibaba Group Holding Limited AI Framework Revenue, Gross Margin and Market Share (2021-2026)
9.6.5 Alibaba Group Holding Limited Recent Developments/Updates
9.6.6 Alibaba Group Holding Limited Competitive Strengths & Weaknesses
9.7 OneFlow Inc.

+357 96 030922
info@marketpublishers.com

9.7.1 OneFlow Inc. Details
9.7.2 OneFlow Inc. Major Business
9.7.3 OneFlow Inc. AI Framework Product and Services
9.7.4 OneFlow Inc. AI Framework Revenue, Gross Margin and Market Share (2021-2026)
9.7.5 OneFlow Inc. Recent Developments/Updates
9.7.6 OneFlow Inc. Competitive Strengths & Weaknesses
9.8 Konduit K.K.
9.8.1 Konduit K.K. Details
9.8.2 Konduit K.K. Major Business
9.8.3 Konduit K.K. AI Framework Product and Services
9.8.4 Konduit K.K. AI Framework Revenue, Gross Margin and Market Share (2021-2026)
9.8.5 Konduit K.K. Recent Developments/Updates
9.8.6 Konduit K.K. Competitive Strengths & Weaknesses
9.9 Sony Group Corporation
9.9.1 Sony Group Corporation Details
9.9.2 Sony Group Corporation Major Business
9.9.3 Sony Group Corporation AI Framework Product and Services
9.9.4 Sony Group Corporation AI Framework Revenue, Gross Margin and Market Share (2021-2026)
9.9.5 Sony Group Corporation Recent Developments/Updates
9.9.6 Sony Group Corporation Competitive Strengths & Weaknesses

10 INDUSTRY CHAIN ANALYSIS

10.1 AI Framework Industry Chain
10.2 AI Framework Upstream Analysis
10.3 AI Framework Midstream Analysis
10.4 AI Framework Downstream Analysis

11 RESEARCH FINDINGS AND CONCLUSION

12 APPENDIX

12.1 Methodology
12.2 Research Process and Data Source
12.3 Disclaimer

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

Table 1. World AI Framework Revenue by Region (2021, 2025 and 2032) & (USD Million), (by Headquarter Location)
Table 2. World AI Framework Revenue by Region (2021-2026) & (USD Million), (by Headquarter Location)
Table 3. World AI Framework Revenue by Region (2027-2032) & (USD Million), (by Headquarter Location)
Table 4. World AI Framework Revenue Market Share by Region (2021-2026), (by Headquarter Location)
Table 5. World AI Framework Revenue Market Share by Region (2027-2032), (by Headquarter Location)
Table 6. Major Market Trends
Table 7. World AI Framework Consumption Value Growth Rate Forecast by Region (2021 & 2025 & 2032) & (USD Million)
Table 8. World AI Framework Consumption Value by Region (2021-2026) & (USD Million)
Table 9. World AI Framework Consumption Value Forecast by Region (2027-2032) & (USD Million)
Table 10. World AI Framework Revenue by Player (2021-2026) & (USD Million)
Table 11. Revenue Market Share of Key AI Framework Players in 2025
Table 12. World AI Framework Industry Rank of Major Player, Based on Revenue in 2025
Table 13. Global AI Framework Company Evaluation Quadrant
Table 14. Head Office of Key AI Framework Players
Table 15. AI Framework Market: Company Product Type Footprint
Table 16. AI Framework Market: Company Product Application Footprint
Table 17. AI Framework Mergers & Acquisitions Activity
Table 18. United States VS China AI Framework Revenue Comparison, (2021 & 2025 & 2032) & (USD Million)
Table 19. United States VS China AI Framework Consumption Value Comparison, (2021 & 2025 & 2032) & (USD Million)
Table 20. United States Based AI Framework Companies, Headquarters (States, Country)
Table 21. United States Based Companies AI Framework Revenue, (2021-2026) & (USD Million)
Table 22. United States Based Companies AI Framework Revenue Market Share

+357 96 030922
info@marketpublishers.com

(2021-2026)
Table 23. China Based AI Framework Companies, Headquarters (Province, Country)
Table 24. China Based Companies AI Framework Revenue, (2021-2026) & (USD Million)
Table 25. China Based Companies AI Framework Revenue Market Share (2021-2026)
Table 26. Rest of World Based AI Framework Companies, Headquarters (Province, Country)
Table 27. Rest of World Based Companies AI Framework Revenue (2021-2026) & (USD Million)
Table 28. Rest of World Based Companies AI Framework Revenue Market Share (2021-2026)
Table 29. World AI Framework Market Size by Computation Graph Execution Types, (USD Million), 2021 & 2025 & 2032
Table 30. World AI Framework Market Size Value by Computation Graph Execution Types (2021-2026) & (USD Million)
Table 31. World AI Framework Market Size by Computation Graph Execution Types (2027-2032) & (USD Million)
Table 32. World AI Framework Market Size by Minimum Supported Compute Precision Types, (USD Million), 2021 & 2025 & 2032
Table 33. World AI Framework Market Size Value by Minimum Supported Compute Precision Types (2021-2026) & (USD Million)
Table 34. World AI Framework Market Size by Minimum Supported Compute Precision Types (2027-2032) & (USD Million)
Table 35. World AI Framework Market Size by Primary Programming Interface Types, (USD Million), 2021 & 2025 & 2032
Table 36. World AI Framework Market Size Value by Primary Programming Interface Types (2021-2026) & (USD Million)
Table 37. World AI Framework Market Size by Primary Programming Interface Types (2027-2032) & (USD Million)
Table 38. World AI Framework Market Size by Application, (USD Million), 2021 & 2025 & 2032
Table 39. World AI Framework Market Size by Application (2021-2026) & (USD Million)
Table 40. World AI Framework Market Size by Application (2027-2032) & (USD Million)
Table 41. Google LLC Basic Information, Manufacturing Base and Competitors
Table 42. Google LLC Major Business
Table 43. Google LLC AI Framework Product and Services
Table 44. Google LLC AI Framework Revenue, Gross Margin and Market Share (2021-2026) & (USD Million)
Table 45. Google LLC Recent Developments/Updates

+357 96 030922
info@marketpublishers.com

Table 46. Google LLC Competitive Strengths & Weaknesses
Table 47. PyTorch Foundation Basic Information, Manufacturing Base and Competitors
Table 48. PyTorch Foundation Major Business
Table 49. PyTorch Foundation AI Framework Product and Services
Table 50. PyTorch Foundation AI Framework Revenue, Gross Margin and Market Share (2021-2026) & (USD Million)
Table 51. PyTorch Foundation Recent Developments/Updates
Table 52. PyTorch Foundation Competitive Strengths & Weaknesses
Table 53. Huawei Technologies Co., Ltd. Basic Information, Manufacturing Base and Competitors
Table 54. Huawei Technologies Co., Ltd. Major Business
Table 55. Huawei Technologies Co., Ltd. AI Framework Product and Services
Table 56. Huawei Technologies Co., Ltd. AI Framework Revenue, Gross Margin and Market Share (2021-2026) & (USD Million)
Table 57. Huawei Technologies Co., Ltd. Recent Developments/Updates
Table 58. Huawei Technologies Co., Ltd. Competitive Strengths & Weaknesses
Table 59. Baidu, Inc. Basic Information, Manufacturing Base and Competitors
Table 60. Baidu, Inc. Major Business
Table 61. Baidu, Inc. AI Framework Product and Services
Table 62. Baidu, Inc. AI Framework Revenue, Gross Margin and Market Share (2021-2026) & (USD Million)
Table 63. Baidu, Inc. Recent Developments/Updates
Table 64. Baidu, Inc. Competitive Strengths & Weaknesses
Table 65. Apple Inc. Basic Information, Manufacturing Base and Competitors
Table 66. Apple Inc. Major Business
Table 67. Apple Inc. AI Framework Product and Services
Table 68. Apple Inc. AI Framework Revenue, Gross Margin and Market Share (2021-2026) & (USD Million)
Table 69. Apple Inc. Recent Developments/Updates
Table 70. Apple Inc. Competitive Strengths & Weaknesses
Table 71. Alibaba Group Holding Limited Basic Information, Manufacturing Base and Competitors
Table 72. Alibaba Group Holding Limited Major Business
Table 73. Alibaba Group Holding Limited AI Framework Product and Services
Table 74. Alibaba Group Holding Limited AI Framework Revenue, Gross Margin and Market Share (2021-2026) & (USD Million)
Table 75. Alibaba Group Holding Limited Recent Developments/Updates
Table 76. Alibaba Group Holding Limited Competitive Strengths & Weaknesses
Table 77. OneFlow Inc. Basic Information, Manufacturing Base and Competitors

+357 96 030922
info@marketpublishers.com

Table 78. OneFlow Inc. Major Business
Table 79. OneFlow Inc. AI Framework Product and Services
Table 80. OneFlow Inc. AI Framework Revenue, Gross Margin and Market Share (2021-2026) & (USD Million)
Table 81. OneFlow Inc. Recent Developments/Updates
Table 82. OneFlow Inc. Competitive Strengths & Weaknesses
Table 83. Konduit K.K. Basic Information, Manufacturing Base and Competitors
Table 84. Konduit K.K. Major Business
Table 85. Konduit K.K. AI Framework Product and Services
Table 86. Konduit K.K. AI Framework Revenue, Gross Margin and Market Share (2021-2026) & (USD Million)
Table 87. Konduit K.K. Recent Developments/Updates
Table 88. Konduit K.K. Competitive Strengths & Weaknesses
Table 89. Sony Group Corporation Basic Information, Manufacturing Base and Competitors
Table 90. Sony Group Corporation Major Business
Table 91. Sony Group Corporation AI Framework Product and Services
Table 92. Sony Group Corporation AI Framework Revenue, Gross Margin and Market Share (2021-2026) & (USD Million)
Table 93. Sony Group Corporation Recent Developments/Updates
Table 94. Sony Group Corporation Competitive Strengths & Weaknesses
Table 95. Global Key Players of AI Framework Upstream (Raw Materials)
Table 96. Global AI Framework Typical Customers

+357 96 030922
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

Figure 1. AI Framework Picture
Figure 2. World AI Framework Total Revenue: 2021 & 2025 & 2032, (USD Million)
Figure 3. World AI Framework Total Revenue (2021-2032) & (USD Million)
Figure 4. World AI Framework Revenue by Region (2021, 2025 and 2032) & (USD Million), (by Headquarter Location)
Figure 5. World AI Framework Revenue Market Share by Region (2021-2032), (by Headquarter Location)
Figure 6. United States Based Company AI Framework Revenue (2021-2032) & (USD Million)
Figure 7. China Based Company AI Framework Revenue (2021-2032) & (USD Million)
Figure 8. Europe Based Company AI Framework Revenue (2021-2032) & (USD Million)
Figure 9. Japan Based Company AI Framework Revenue (2021-2032) & (USD Million)
Figure 10. South Korea Based Company AI Framework Revenue (2021-2032) & (USD Million)
Figure 11. ASEAN Based Company AI Framework Revenue (2021-2032) & (USD Million)
Figure 12. India Based Company AI Framework Revenue (2021-2032) & (USD Million)
Figure 13. AI Framework Market Drivers
Figure 14. Factors Affecting Demand
Figure 15. World AI Framework Consumption Value (2021-2032) & (USD Million)
Figure 16. World AI Framework Consumption Value Market Share by Region (2021-2032)
Figure 17. United States AI Framework Consumption Value (2021-2032) & (USD Million)
Figure 18. China AI Framework Consumption Value (2021-2032) & (USD Million)
Figure 19. Europe AI Framework Consumption Value (2021-2032) & (USD Million)
Figure 20. Japan AI Framework Consumption Value (2021-2032) & (USD Million)
Figure 21. South Korea AI Framework Consumption Value (2021-2032) & (USD Million)
Figure 22. ASEAN AI Framework Consumption Value (2021-2032) & (USD Million)
Figure 23. India AI Framework Consumption Value (2021-2032) & (USD Million)
Figure 24. Producer Shipments of AI Framework by Player Revenue ($MM) and Market Share (%): 2025
Figure 25. Global Four-firm Concentration Ratios (CR4) for AI Framework Markets in 2025
Figure 26. Global Four-firm Concentration Ratios (CR8) for AI Framework Markets in

+357 96 030922
info@marketpublishers.com

2025
Figure 27. United States VS China: AI Framework Revenue Market Share Comparison (2021 & 2025 & 2032)
Figure 28. United States VS China: AI Framework Consumption Value Market Share Comparison (2021 & 2025 & 2032)
Figure 29. World AI Framework Market Size by Computation Graph Execution Types, (USD Million), 2021 & 2025 & 2032
Figure 30. World AI Framework Market Size Market Share by Computation Graph Execution Types in 2025
Figure 31. Dynamic Graph Frameworks
Figure 32. Static Graph Frameworks
Figure 33. Hybrid Graph Frameworks
Figure 34. World AI Framework Market Size Market Share by Computation Graph Execution Types (2021-2032)
Figure 35. World AI Framework Market Size by Minimum Supported Compute Precision Types, (USD Million), 2021 & 2025 & 2032
Figure 36. World AI Framework Market Size Market Share by Minimum Supported Compute Precision Types in 2025
Figure 37. 32-bit Precision Frameworks (Minimum Supported Precision: 32-bit)
Figure 38. 16-bit Mixed-Precision Frameworks (Minimum Supported Precision: 16-bit)
Figure 39. 8-bit and Lower Precision Frameworks (Minimum Supported Precision: ?8-bit)
Figure 40. World AI Framework Market Size Market Share by Minimum Supported Compute Precision Types (2021-2032)
Figure 41. World AI Framework Market Size by Primary Programming Interface Types, (USD Million), 2021 & 2025 & 2032
Figure 42. World AI Framework Market Size Market Share by Primary Programming Interface Types in 2025
Figure 43. Python-First Frameworks
Figure 44. Multi-Language Frameworks
Figure 45. Java/JVM-Centric Frameworks
Figure 46. World AI Framework Market Size Market Share by Primary Programming Interface Types (2021-2032)
Figure 47. World AI Framework Market Size by Application, (USD Million), 2021 & 2025 & 2032
Figure 48. World AI Framework Market Size Market Share by Application in 2025
Figure 49. Computer Vision Model Development (Image Classification, Detection, and Segmentation)
Figure 50. Natural Language Processing and Large Language Model Development

+357 96 030922
info@marketpublishers.com

Figure 51. Recommendation and Ranking Model Development
Figure 52. Speech and Audio AI Model Development (Recognition, Synthesis, and Processing)
Figure 53. Scientific and Industrial AI Model Development (Simulation, Prediction, and Intelligent Control)
Figure 54. World AI Framework Market Size Market Share by Application (2021-2032)
Figure 55. AI Framework Industrial Chain
Figure 56. Methodology
Figure 57. Research Process and Data Source

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Global AI Framework Supply, Demand and Key Producers, 2026-2032
Product link: https://marketpublishers.com/r/GC29155C8C26EN.html
Price: US$ 4,480.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/GC29155C8C26EN.html