

Large Language Model (LLM) Market by Offering (Software (Domain-specific LLMs, General-purpose LLMs), Services), Modality (Code, Video, Text, Image), Application (Information Retrieval, Code Generation), End User and Region - Global Forecast to 2030

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Abstracts

The Large Language Model (LLM) market is projected to grow from USD 6.4 billion in 2024 to USD 36.1 billion by 2030, at a compound annual growth rate (CAGR) of 33.2% during the forecast period. The growth of the large language model market is primarily driven by increasing accessibility of extensive datasets, progressions in deep learning algorithms, and the necessity for improved human-machine interaction.

“By model size, 100 billion to 200 billion parameter segment is expected to register the fastest market growth rate during the forecast period”

Models within this parameter range strike a balance between complexity and practicality, offering substantial capabilities while remaining computationally feasible. Language models such as LaMDA 2, GPT-3, BLOOMZ, Jurassic-2, and Falcon 180B exemplify this trend, showcasing the potential of models within this size bracket to deliver impressive language understanding and generation capabilities. Additionally, advancements in hardware infrastructure, including specialized accelerators and distributed computing systems, are enhancing the efficiency and scalability of training and deploying such models. Furthermore, as demand grows for applications such as conversational AI, natural language understanding, and content generation, there is increasing interest in models of this size range that can meet diverse requirements across various industries, thereby driving their rapid adoption and market expansion.

“By modality, text segment is expected to account for the largest market share during

the forecast period”

Text-based applications are ubiquitous across various industries, including customer service chatbots, sentiment analysis tools, and language translation services. As LLMs continue to improve in understanding and generating textual content, the demand for such applications is expected to surge. Moreover, text data is abundant and easily accessible, making it a primary focus for LLM development and deployment. Additionally, the proliferation of online platforms and social media has generated massive volumes of textual data that can be leveraged for insights and decision-making. Furthermore, text-based communication remains one of the most prevalent forms of human interaction, driving the need for LLMs to facilitate more natural and effective communication between humans and machines.

“By Region, Asia Pacific is slated to grow at the fastest rate and North America to have the largest market share during the forecast period”

The Asia Pacific region is witnessing a rapid digital transformation across various sectors, including finance, healthcare, and manufacturing, driving the demand for advanced language technologies like LLMs to streamline operations and enhance productivity. North America's advanced infrastructure and substantial funding for research and development provide a fertile ground for the growth of LLM technologies. Additionally, the region's diverse industries, including finance, healthcare, and e-commerce, are increasingly recognizing the benefits of LLMs for tasks such as data analysis, customer service, and text generation.

Breakdown of primaries

In-depth interviews were conducted with Chief Executive Officers (CEOs), vice presidents, innovation and technology directors, system integrators, and executives from various key organizations operating in the large language model market.

By Company: Tier I–35%, Tier II–45%, and Tier III–20%

By Designation: C-Level Executives–35%, D-Level Executives–30%, and others–35%

By Region: North America– 40%, Europe –20%, Asia Pacific– 25% and Middle East Africa- 9%, Latin America-6%

The report includes the study of key players offering large language model software and services. The major players in the large language model market include Google (US), OpenAI (US), Anthropic (US), Meta (US), Microsoft (US), NVIDIA (US), AWS (US), IBM (US), Oracle (US), HPE (US), Tencent (China), Yandex (Russia), Naver (South Korea), AI21 Labs (Israel), Hugging Face (US), Baidu (China), SenseTime (Hong Kong), Huawei (China), FedML (US), DynamoFL (US), Together AI (US), Upstage (South Korea), Mistral AI (France), Adept (US), Neuralinity (Germany), Mosaic ML (US), Stability AI (UK), LightOn (France), Cohere (Canada), Turing (US), Lightning AI (US), and WhyLabs (US).

Research coverage

This research report categorizes the large language model market by Offering (Software and Services), Software By Type (General-purpose LLMs, Domain-specific LLMs, Multilingual LLMs, Task-specific LLMs), Software By Source Code (Open-source LLMs, Closed-source LLMs), Software By Deployment Mode (On-premises, Cloud), Services (Consulting, LLM Development, Integration, LLM fine-tuning (Full Fine-tuning, Retrieval-augmented Generation, Adapter-Based Parameter Efficient Tuning), LLM-backed App Development, Prompt Engineering, Support, Maintenance), by Architecture (Autoregressive Language Models, Autoencoding Language Models, Hybrid Language Models), by Modality (Text, Code, Image, Video), by Model Size (Below 1 Billion Parameters, 1 Billion To 10 Billion Parameters, 10 Billion To 50 Billion Parameters, 50 Billion To 100 Billion Parameters, 100 Billion To 200 Billion Parameters, 200 Billion To 500 Billion Parameters, Above 500 Billion Parameters), by Application (Information Retrieval, Language Translation and Localization, Content Generation and Curation, Code Generation, Customer Service Automation, Data Analysis and BI, Other Applications (Knowledge Base Answering, Decision-Making Support, Malware Analysis)), by End-user (IT/ITeS, Healthcare and Life Sciences, Law Firms, BFSI, Manufacturing, Education, Retail, Media and Entertainment, Other End-users (Government & Defense, Automotive, Telecommunications)), and by Region (North America, Europe, Asia Pacific, Middle East & Africa, and Latin America). The scope of the report covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the large language model market. A detailed analysis of the key industry players has been done to provide insights into their business overview, solutions, and services; key strategies; contracts, partnerships, agreements, new product & service launches, mergers and acquisitions, and recent developments associated with the large language model market. Competitive analysis of upcoming startups in the large language model market ecosystem is covered in this report.

Key Benefits of Buying the Report

The report would provide the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall large language model market and its subsegments. It would help stakeholders understand the competitive landscape and gain more insights better to position their business and plan suitable go-to-market strategies. It also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (the availability of extensive datasets is on the rise, ever evolving deep learning algorithms, growing necessity for improved communication between humans and machines, rising demand for automated content creation and curation), restraints (high cost of model training & inference optimization, data biasness and quality concerns, lack of transparency in explainability and interpretability), opportunities (enhanced language translation and localization with the use of LLMs, emotion recognition and sentiment analysis using LLMs, pressing demand for LLMs in knowledge discovery and management), and challenges (high inference latency, computational inefficiency due to large memory requirements, maintaining model performance and integrity).

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the large language model market

Market Development: Comprehensive information about lucrative markets – the report analyses the large language model market across varied regions

Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the large language model market

Competitive Assessment: In-depth assessment of market shares, growth strategies and service offerings of leading players like Google (US), OpenAI (US), Anthropic (US), Meta (US), Microsoft (US), NVIDIA (US), AWS (US), IBM

(US), Oracle (US), HPE (US), Tencent (China), Yandex (Russia), Naver (South Korea), AI21 Labs (Israel), Hugging Face (US), Baidu (China), SenseTime (Hong Kong), Huawei (China), among others in the large language model market. The report also helps stakeholders understand the pulse of the large language model market and provides them with information on key market drivers, restraints, challenges, and opportunities.

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*Details on Business overview, Products/Solutions/Services offered, Recent developments, MnM view, Key Strengths, Strategic choices made, and Weaknesses and Competitive threats might not be captured in case of unlisted companies.

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