JPMorganChase

2025
Emerging Technology Trends

Global Technology Strategy, Innovation and Partnerships

Executive Summary

Through collaborative efforts with technology leaders across the firm and continuous connectivity with the external technology ecosystem, the Global Technology Strategy, Innovation, and Partnerships team helps JPMorganChase remain connected to innovative and emerging technology trends. Each year, the team identifies a collection of the most meaningful emerging technology trends to shape and influence our Global Technology strategy and future roadmap. This document outlines the top trends for 2025, with an overview of each trend and insights from the external market.

In 2024, the excitement and innovation around Generative AI (GenAI) continued, offering transformative potential across industries. We saw AI capabilities start to become embedded in horizontal applications for content creation, workflow automation, and data analysis, and in vertical applications for users across software engineering, sales, marketing, finance, fraud, and risk. GenAI also gained traction for tasks like data management or in streamlining business processes with agents and orchestration. All of this is powered by foundational models while requiring specialist computing infrastructure to train these models. In addition, several trends emerged across the model providers including proprietary models versus open models, domain-specific models (e.g., coding, image and video creation), and the use of smaller models to provide broader deployment options with optimized performance, including for mobile and edge devices. In the security space, capabilities emerged to ensure the secure use of AI technology and to protect against new threat actors using GenAI and agentic AI.

Our 2025 report maintains a clear focus on the innovation around GenAI and AI agents across technology domains. Looking toward the future of technology modernization, we cover the emergence of key trends like agentic software development, AI clouds and data center design. Considering the breadth of innovation that is impacting employee and customer experiences, we examine how GenAI is automating workflows, introducing new interaction modalities and transforming areas such as content creation and marketing. Moving into data and AI infrastructure, we highlight trends such as the evolution of Retrieval Augmented Generation (RAG) for integrating proprietary data into model responses and multi-agent systems. Sustainability remains a key focus of innovation across the tech stack including solutions to reduce the power demands of AI models, which leads us to examine strategies for the next generation of data center design and use of smaller models. Finally, as adoption of AI accelerates and threat vectors evolve, we examine key technology trends for protecting agentic systems, confidential AI and agentic security capabilities.

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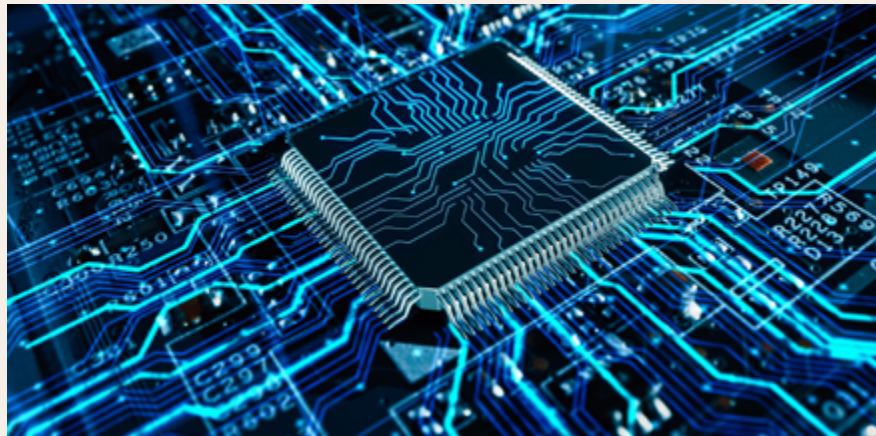
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