

# Study of Recent Trends in Artificial Intelligence

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**Abstract:** Artificial Intelligence (AI) has made significant progress in recent years with applications in healthcare, education, finance, manufacturing and automation. Large -scale dataset, computing capacity and increasing availability of advanced algorithms have accelerated AI use in this industry. The research paper investigates recent trends in recent trends such as machine learning advancements, Explainable AI, Generative AI, Edge AI, and Ethical AI. It emphasizes their possibility of revolutions in industries and society, discussing the benefits of AI application, challenges and future directions.

AI has enabled success in Automation, Decision Making and predictive analysis by changing traditional professional models and operations. The integration of AI in critical fields, such as healthcare, where it enhances the diagnosis and treatment recommendations and finance, where it improves the increasing importance of risk assessment and fraud detection. In addition, the AI-powered automation supply chain refers by improving streamlined processes, optimizing supply chains and efficiency.

However, the rapid development of AI also presents challenges, including ethical concerns, bias in the AI model, the issue of privacy and clarity in the decision. The purpose of the emergence of the responsible AI Framework is to address these concerns, ensuring that AI technologies align with ethical standards and social values. Furthermore, as the AI models become more complex, ensuring that their transparency and reliability remains important to promote and adopt widely.

This study provides information about how organizations, researchers and policy makers are navigating the AI landscape to maximize their capacity by reducing risks. This highlights the importance of interdisciplinary cooperation in responsibility for the benefit of future generations and ethical AI technologies..

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