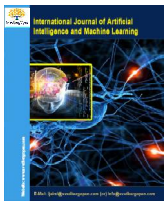
https://doi.org/10.51483/IJAIML.5.2.2025.43-50 ISSN: 2789-2557

SvedbergOpen
DISSEMINATION OF KNOWLEDGE

International Journal of Artificial Intelligence and Machine Learning

Publisher's Home Page: https://www.svedbergopen.com/



Research Paper Open Access

The EU AI Act's Impact on Artificial Intelligence Applications in Financial Services

David Krause[1*] and Eric Krause[2]

[1]Emeritus Professor, Finance Department, Marquette University, Milwaukee, WI, USA. E-mail: david.krause@marquette.edu
[2]Assistant Professor of Accounting, Iowa State University, Ames, IA, USA. E-mail: ekrause1@iastate.edu

Article Info

Volume 5, Issue 2, July 2025
Received : 17 March 2025
Accepted : 30 June 2025
Published : 25 July 2025
doi: 10.51483/IJAIML.5.2.2025.43-50

Abstract

This paper examines the significant implications of the European Union's Artificial Intelligence Act (EU AI Act) for US and other non-EU financial technology firms involved in developing or deploying AI systems within the EU. The Act's risk-based classification and stringent compliance obligations present considerable regulatory and operational hurdles for AI applications in crucial financial services like credit scoring and algorithmic trading. The analysis details how requirements for conformity assessments, data governance, human oversight, and auditability impact these applications. Furthermore, the paper evaluates the contrasting regulatory philosophies of the EU and the US, offering strategic recommendations for firms and policymakers navigating this transatlantic AI governance landscape. Given the EU's growing regulatory influence, proactive compliance is essential for non-EU firms to avoid market exclusion. The paper concludes with policy considerations aimed at balancing regulatory rigor with advancing innovation.

Keywords: *Artificial intelligence, EU AI Act, Compliance, Fintech, Regulation, Risk management, Auditing, Transatlantic policy*

1. Introduction

The European Union has created the world's first detailed set of laws to control Artificial Intelligence (AI). This legal framework is called the Artificial Intelligence Act and was established in 2023 (Artificial Intelligence Act, 2023). Entering into force in August 2024, the Act introduces a risk-based approach that classifies AI systems into four tiers: unacceptable, high, limited, and minimal risk (Marcinek *et al.*, 2024). AI applications used in financial services—especially those that affect credit access, financial risk assessments, or consumer outcomes—are generally considered high-risk systems and are thus subject to strict regulatory scrutiny (European Parliament, 2025).

* *Corresponding author: David Krause, Emeritus Professor, Finance Department, Marquette University, Milwaukee, WI, USA. E-mail: david.krause@marquette.edu*

This paper focuses on the impact of the EU AI Act on financial services AI systems, with particular emphasis on US and other non-EU firms that operate in the European market. While the Act applies extraterritorially to any provider placing AI systems in the EU, it introduces complex technical and governance obligations that will disproportionately affect cross-border fintech operations. By analyzing sector-specific compliance requirements and strategic risks, this paper contributes to the emerging literature on global AI regulation and its implications for financial innovation.

2. AI Applications in Financial Services

AI is reshaping financial services by enabling more efficient, scalable, and data-driven decision-making processes (Mazzini and Bagni, 2023; Crisanto *et al.*, 2024). However, many of these applications fall under the high-risk category of the EU AI Act due to their impact on individuals' rights and access to essential financial services (European Parliament, 2025; Krause, 2025).

2.1. Credit Scoring and Creditworthiness Assessments

AI models used for credit scoring evaluate borrowers based on financial and behavioral data. These models often leverage machine learning algorithms to identify patterns in large datasets and predict credit risk. The EU AI Act explicitly lists AI systems used to evaluate creditworthiness or establish credit scores for natural persons as high-risk (Article 6, Annex III) because they can affect access to essential private services and raise concerns about discrimination and lack of explainability (European Commission, 2024).

Providers must ensure these models meet strict data quality requirements, address potential biases in training datasets, and document all inputs and decision-making logic. Inaccurate or opaque credit scoring algorithms could expose providers to regulatory penalties and reputational risk (Gupta, 2024).

2.2. Fraud Detection and Anti-Money Laundering (AML)

Financial institutions deploy AI for fraud detection and AML compliance by monitoring transactions for suspicious behavior. These systems rely on unsupervised learning or anomaly detection to flag potential fraud, sometimes in real time. Under the EU AI Act, these applications may be considered high-risk if they significantly impact financial transactions or involve profiling of individuals.

Compliance obligations include implementing robust monitoring protocols, ensuring human oversight, and documenting risk mitigation strategies. The use of synthetic or augmented datasets for model training must also be justified and evaluated for bias (Frazier, 2024).

2.3. Algorithmic Trading and Portfolio Management

AI-driven systems increasingly automate trading strategies, asset allocation, and portfolio optimization. While not always considered high-risk under the Act, these systems may fall under scrutiny if used in consumer-facing platforms, such as robo-advisors or automated wealth management tools. When these systems influence individual investment decisions, they may require compliance with high-risk AI system obligations, including transparency of algorithmic logic and recordkeeping of decision pathways (European Commission, 2024).

2.4. Customer Due Diligence and KYC Compliance

Know Your Customer (KYC) processes often use facial recognition and document verification AI tools to authenticate users. These biometric systems may trigger additional oversight if they fall within the scope of remote biometric identification, a category closely regulated or even prohibited in public spaces under the EU AI Act. Although financial services operate under different conditions, providers must ensure their identity verification systems comply with data governance and transparency rules, especially regarding data retention and consent (CNIL, 2024).

2.5. Customer Service and Chatbots

Chatbots and virtual assistants are widely used to handle routine financial customer inquiries. These systems typically fall into the limited-risk category under the Act. However, they must comply with transparency obligations, including informing users that they are interacting with an AI system. If a chatbot performs tasks that involve credit decisions or dispute resolution, it may escalate into the high-risk category (NAVEX, 2025).

3. High-Risk Classification Under the EU AI Act

Article 6 of the EU AI Act outlines the criteria for identifying high-risk systems, including those used in access to essential private services such as credit, insurance, and financial advice (European Commission, 2024). This classification triggers compliance obligations under Articles 16 through 29, including conformity assessments, quality management systems, and ongoing monitoring. For example, AI systems that determine creditworthiness or manage investment portfolios must undergo pre-deployment conformity assessments and maintain audit-ready documentation throughout their lifecycle (Artificial Intelligence Act, 2023; Cassava and Güclütürk, 2024).

The cornerstone of the EU AI Act is its risk-based classification system, which distinguishes between unacceptable, high, limited, and minimal risk AI systems. Financial applications such as credit scoring, algorithmic trading, and AML compliance are typically deemed high-risk under Annex III of the Act, which includes systems that influence access to essential private services like credit, insurance, and legal services (European Commission, 2024).

A specific system is designated high-risk if it meets the criteria in Article 6(2), meaning it is intended to be used as a safety component or is listed under Annex III. For financial services, this applies to AI used in evaluating creditworthiness, managing personal finances, making employment decisions, or monitoring behavior that could result in legal or financial consequences (Artificial Intelligence Act, 2023).

3.1. Annex III: Specific Financial Applications Identified as High-Risk

Annex III identifies key use cases relevant to financial services:

- AI used for credit scoring or access to financial loans (Annex III, 5(a));
- AI used in employment-related decisions, including recruitment and promotion in financial institutions (Annex III, 4);
- AI used in biometric identification, often integrated into financial KYC / AML processes (Annex III, 1).

These systems fall within the scope of high-risk AI and are therefore subject to extensive regulatory obligations, including conformity assessments and lifecycle oversight.

3.2. General Purpose AI (GPAI) and Financial Services

Although financial firms typically develop proprietary or application-specific AI, the increasing use of Large Language Models (LLMs) and General-Purpose AI (GPAI) introduces additional complexity. The EU AI Act introduces tailored provisions for GPAI models, particularly those with systemic risk potential. Financial institutions deploying or fine-tuning GPAI models, for example for compliance analytics or investment decisioning, must comply with documentation and transparency rules under Chapter V (European Parliament, 2025).

Auditing plays a critical role in ensuring the responsible deployment of generative artificial intelligence (GenAI) systems (Krause and Krause, 2025). As GenAI systems are increasingly adopted across industries, it is important to mitigate risks such as biases, misuse, and errors through rigorous auditing practices. Emerging regulatory frameworks, such as New York City's Bias Audit Law, mandate audits for high-risk AI systems, underscoring the necessity of both internal and external audits to enhance transparency, accountability, and public trust. Traditional auditors face challenges in this rapidly evolving field and collaboration with AI specialists is necessary to develop more effective auditing practices, ultimately promoting the ethical and dependable integration of GenAI systems.

3.3. Dynamic Risk Reclassification

An important dimension of the Act is its dynamic character. AI systems may be reclassified post-deployment if real-world use reveals risks not anticipated during design. Article 84 establishes procedures for reassessment, particularly if systems fail in ways that endanger fundamental rights or financial stability. This underscores the importance of post-market monitoring for AI used in volatile sectors like finance (Apostle, 2024).

3.4. Systemic Risks and Supervisory Oversight

AI systems used by systemically important financial institutions may come under additional scrutiny by EU regulators. The Act grants the European AI Office (EAIO) and national supervisory authorities enhanced investigatory powers, particularly for systems deemed to have systemic implications (European Commission, 2024). The possibility of joint investigations and harmonized enforcement across member states adds a level of complexity for firms operating transnationally (Hildebrand and Rubin, 2024).

3.5. Legal Uncertainty and Ambiguity in Application

Although the classification scheme is extensive, key definitions remain open to interpretation. The scope of terms like "intended purpose" or "substantial modification" affects whether a financial AI system is subject to initial classification or reclassification. This creates legal uncertainty for developers and deployers, particularly fintech firms iterating on AI models in real time (Ganesh, 2024).

The high-risk classification framework under the EU AI Act is particularly consequential for financial services, where decisions made by AI can significantly affect individual rights and systemic financial outcomes. Firms developing or deploying financial AI must navigate not only formal classification rules but also the ambiguities surrounding risk evolution, cross-border supervision, and GPAI deployment.

4. Compliance and Audit Requirements

Compliance for high-risk financial AI systems under the EU AI Act requires:

- **Technical Documentation:** Detailed records of system design, data governance, testing, and risk mitigation protocols.
- **Conformity Assessment:** Internal or third-party review prior to market placement (Jones Day, 2025).
- **Quality Management System (QMS):** Organizational policies for AI governance, transparency, and accountability (Sullivan, 2025).
- **Human Oversight:** Measures to ensure appropriate monitoring and intervention capability in AI-assisted decision-making.
- **Fundamental Rights Impact Assessments (FRIAs)**: Evaluations of potential impacts on non-discrimination, privacy, and consumer protection (NAVEX, 2025).

The administrative burdens of these requirements are substantial. Cost estimates suggest that compliance may range from €400,000 to €2 million per AI system, excluding post-market monitoring costs (2021.ai, 2024).

Beyond initial compliance, the EU AI Act imposes ongoing obligations through post-market monitoring and incident reporting. Providers of high-risk AI must continuously assess system performance and document any malfunctions or breaches affecting safety or fundamental rights (European Commission, 2024). This includes a legal obligation to notify authorities of serious incidents or malfunctions under Article 62, creating liability exposure for failure to maintain updated risk assessments and mitigation procedures (Gupta, 2024).

The conformity assessment process depends on the nature of the system. For standalone AI applications not governed by sectoral legislation, providers may conduct internal conformity assessments if they demonstrate a robust QMS and maintain technical documentation (Artificial Intelligence Act, 2023). However, third-party assessments are mandatory for systems involved in biometric identification or those integrated into products covered under EU product safety laws (De Boel *et al.*, 2025).

Documentation must be audit-ready and accessible for at least ten years, as stipulated in Article 11. According to the European Confederation of Institutes of Internal Auditing, this includes design specifications, testing methodologies, bias detection mechanisms, data governance practices, and explanations of decision logic (ECIIA, 2025). ISO 42001, the emerging international standard for AI management systems, provides a framework to help organizations meet these documentation and governance expectations (Sullivan, 2025; ISO, 2024).

Human oversight mechanisms must be clearly defined and implemented throughout the AI lifecycle. Article 14 requires providers to ensure systems are designed with fallback procedures and manual override

capabilities, and that personnel involved are adequately trained to monitor and interpret system behavior (NAVEX, 2025).

In addition, firms must evaluate risks to fundamental rights through Fundamental Rights Impact Assessments (FRIAs), which are designed to ensure that AI systems do not create discriminatory effects or undermine personal privacy. These assessments must be revisited when significant modifications are made to the AI system or when new risks are identified post-deployment (Gupta, 2024). Furthermore, providers are obligated to establish thorough risk management systems that function continuously throughout the entire lifecycle of their high-risk AI applications (Peaden, 2024).

Financial institutions must also prepare for regulatory inspections and potential enforcement actions. National market surveillance authorities may request access to documentation, conduct audits, and impose administrative sanctions for non-compliance (European Commission, 2024). This underscores the need for continuous compliance readiness, particularly for multinational firms operating across different EU jurisdictions.

5. Cross-Border Regulatory Tensions

The US has taken a markedly different approach to AI regulation compared to the European Union. Under the Biden administration, an AI Executive Order was issued in 2021 to establish a framework for AI governance, promoting innovation while ensuring safety and fairness. However, this approach was reversed with the revocation of the order under the Trump administration, which emphasized deregulation and the removal of compliance burdens to enhance American AI competitiveness (Krause, 2024; White House, 2025; Huffman *et al.*, 2025). This shift toward minimal oversight was championed to foster rapid innovation in AI technologies, particularly in sectors like financial services and fintech. Proponents argue that a lighter regulatory touch would allow US firms to innovate without the constraints imposed by more rigorous regulatory frameworks like the EU AI Act.

In contrast, the EU's AI regulatory approach, spearheaded by the EU AI Act, places considerable emphasis on stringent compliance, transparency, and ethical considerations, particularly for high-risk sectors such as finance, healthcare, and law enforcement (European Commission, 2025). This divergence in regulatory philosophies presents significant challenges for US firms, particularly those in the fintech sector, when they attempt to enter EU markets. The regulatory mismatch increases exposure to legal risk and compliance costs for US companies operating in the EU. US firms are required to meet the EU's robust documentation, risk management, and audit requirements, which can be burdensome for companies accustomed to a more flexible regulatory environment in the US (Ganesh, 2024).

This divergence in regulatory approaches creates substantial uncertainty for cross-border firms, particularly Small and Medium-sized Enterprises (SMEs) with limited resources to devote to compliance infrastructure. The absence of a harmonized transatlantic AI framework means that US-based fintech companies must navigate the EU's stringent documentation and audit requirements in isolation, further complicating their market entry strategies. As a result, many US firms face significant barriers to entry, which may lead to reduced market access or, in some cases, the decision to forego expansion into the EU market altogether (Fitzgerald and Lee, 2025). Moreover, the potential for conflicting regulations to arise in the future as both the US and EU continue to evolve their AI frameworks introduces another layer of complexity for firms seeking to scale internationally.

The regulatory tensions between the US and the EU underscore the broader challenge of creating a unified international approach to AI governance. For US-based fintech firms, this fragmented regulatory landscape not only increases compliance costs but also hinders innovation by imposing inconsistent legal requirements across markets. The lack of a transatlantic regulatory framework leaves companies grappling with disparate obligations, which could ultimately stifle the global growth of AI technologies and cross-border collaborations (Ganesh, 2024; Fitzgerald and Lee, 2025).

6. Strategic Considerations for Fintech Firms

For US and non-EU fintech firms seeking to maintain or expand operations in Europe, the EU AI Act presents

both regulatory risks and strategic imperatives. To remain compliant and competitive, firms must integrate regulatory adaptability into their AI governance frameworks.

First, aligning internal governance with internationally recognized standards such as ISO/IEC 42001, the newly developed standard for Artificial Intelligence Management Systems (AIMS), can serve as a foundational step. This standard establishes policies, procedures, and practices for managing AI risks in a structured and auditable way (ISO, 2024). By adopting ISO 42001, firms can demonstrate a commitment to responsible AI that aligns with the EU's regulatory expectations, potentially streamlining conformity assessments and reducing audit friction.

Second, early-stage risk assessments are critical to determine whether deployed AI systems fall under the EU's "high-risk" category, which includes applications in credit scoring, fraud detection, and biometric authentication—common use cases in financial services (European Commission, 2024). These assessments should be dynamic and iterative, accounting for model updates and shifts in intended use.

Third, the development of modular AI architectures—systems designed to be reconfigured for different regulatory jurisdictions—can reduce compliance burdens. For example, firms can isolate components subject to European oversight, such as model transparency layers or data provenance logs, while leaving core functionality intact for other markets. This allows for cost-effective compliance across jurisdictions without sacrificing innovation (Crisanto *et al.*, 2024; Passador, 2024).

Fourth, audit readiness must become a core competency. The EU AI Act mandates comprehensive documentation, including model design, training datasets, performance metrics, and post-deployment monitoring. Institutionalizing these practices through internal audit functions, compliance training, and documentation management systems will reduce regulatory friction and enhance trustworthiness (Floridi *et al.*, 2018).

Finally, constructive engagement with EU regulators is essential. Participation in regulatory sandboxes, industry consultations, and conformity assessment procedures can help clarify classification ambiguities and build goodwill. Firms that take a proactive stance in shaping the interpretation and application of the AI Act are more likely to secure favorable compliance outcomes (EESC, 2021). By adopting these strategies, fintech firms can position themselves not only for compliance but also for leadership in responsible AI deployment across borders.

7. Conclusion

The EU AI Act marks a transformative moment in the global governance of artificial intelligence, particularly for financial technologies. As the first comprehensive legal framework of its kind, it elevates AI regulation to a matter of legal compliance rather than voluntary ethical practice. For US and non-EU fintech companies, this represents both a challenge and an opportunity: a challenge in navigating heightened regulatory scrutiny and operational complexity, and an opportunity to build more transparent, accountable, and trustworthy AI systems.

Adapting to the EU AI Act requires more than legal adjustments, it demands strategic transformation. Firms that align with international standards, invest in compliance infrastructure, and engage with regulators will not only mitigate risk but also gain a competitive advantage in markets increasingly prioritizing AI oversight.

8. Future Research

Future research should explore empirical outcomes of the EU AI Act's implementation, including its impact on AI innovation, regulatory arbitrage, and transatlantic cooperation. Further analysis is also warranted on how different regulatory environments affect AI system design and firm behavior, especially in highly dynamic sectors such as fintech.

References

2021.ai. (2024). Understanding the EU AI Act Penalties and Achieving Regulatory Compliance. https://2021.ai/news/understanding-the-eu-ai-act-penalties-and-achieving-regulatory-compliance

Apostle, J. (2024). The EU AI Act: Oversight and Enforcement. *Orrick*. https://www.orrick.com/en/Insights/2024/09/The-EU-AI-Act-Oversight-and-Enforcement

Artificial Intelligence Act. (2023). Articles 11, 14, and 62: Documentation, Oversight, and Reporting. https://artificialintelligenceact.eu/article/11/

Artificial Intelligence Act. (2023). Article 16: Obligations of Providers of High-Risk AI Systems. https://artificialintelligenceact.eu/article/16/

Cassava, A. and Güclütürk, O. (2024). Top 10 Operational Impacts of the EU AI Act. *IAPP*. https://iapp.org/resources/article/top-impacts-eu-ai-act-ai-assurance-risk-categories/

Crisanto, J.C., Leuterio, C.B., Prenio, J. and Yong, J. (2024). Regulating AI in the Financial Sector: Recent Developments and Main Challenges. FSI Insights No. 63, Bank for International Settlements. https://www.bis.org/fsi/publ/insights63.pdf

CNIL. (2024). AI: CNIL Publishes its First Recommendations on the Development of Artificial Intelligence Systems. https://www.cnil.fr/en/ai-cnil-publishes-its-first-recommendations-development-artificial-intelligence-systems

De Boel, L., Mithal, M., Nuding, M. and O'Neil, J. (2025). The EU's AI Act Starts to Apply as of February 2, 2025. *Wilson Sonsini*. https://www.wsgr.com/en/insights/the-eus-ai-act-starts-to-apply-as-of-february-2-2025.html

European Confederation of Institutes of Internal Auditing (ECIIA). (2025). The AI Act Road to Compliance. https://www.eciia.eu/wp-content/uploads/2025/01/The-AI-Act-Road-to-Compliance-Final-1.pdf

European Commission. (2024). AI Act Implementation Timeline. https://digital-strategy.ec.europa.eu/en/news/ai-act-participate-drawing-first-general-purpose-ai-code-practice

European Commission. (2024). Artificial Intelligence Act: Proposal for a Regulation Laying Down Harmonised Rules on Artificial Intelligence. https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai

European Parliament. (2025). EU AI Act: First Regulation on Artificial Intelligence. https://www.europarl.europa.eu/topics/en/article/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence

European Economic and Social Committee (EESC). (2021). Opinion of the European Economic and Social Committee on Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence. EESC 2021/02482. https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52021AE2482

Fitzgerald, L. and Lee, J. (2025). AI Regulation and Compliance: The Cross-Border Challenges for Fintech Firms in the U.S. and EU. *Journal of International Business Regulation*, 47(2), 34-55. https://doi.org/10.1016/j.jibr.2025.02.005

Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., Luetge, C., Madelin, R., Pagallo, U., Rossi, F. and Schafer, B. (2018). AI4People—An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations. *Minds and Machines*, 28, 689-707. https://link.springer.com/article/10.1007/S11023-018-9482-5

Frazier, T. (2024). EU AI Act and its Relevance to US-Based Companies. *Class*. https://www.class.com/blog/summary-of-the-eu-ai-act/

Ganesh, H. (2024). EU and US AI Regulation Differences: Compliance Guide for Tech. *The National Law Review*. https://natlawreview.com/article/difference-between-eu-and-us-ai-regulation-foreshadowing-future-litigation-ai

Gupta, P. (2024). European Union Artificial Intelligence Act: An Auditor's Perspective. ISACA. https://www.isaca.org/resources/news-and-trends/isaca-now-blog/2024/european-union-artificial-intelligence-act-an-auditors-perspective

Hildebrand, M. and Rubin, J. (2024). EU AI Act: Implementation and Enforcement Explainer. *Lowenstein Sandler*. https://www.lowenstein.com/news-insights/publications/client-alerts/the-eu-artificial-intelligence-act-of-2024-what-you-need-to-know-privacy

Huffman, R., Lee, N., Burnette, R., Shapanka, M. and Gweon, A. (2025). January 2025 AI Developments–Transitioning to the Trump Administration. *Inside Government Contracts*. https://www.insidegovernmentcontracts.com/2025/02/january-2025-ai-developments-transitioning-to-the-trump-administration/

International Organization for Standardization (ISO). (2024). ISO/IEC 42001: Artificial Intelligence Management System–Requirements. *International Organization for Standardization*. https://www.iso.org/standard/81228.html

Jones Day. (2025). EU AI Act: First Rules Take Effect on Prohibited AI Systems. https://www.jonesday.com/en/insights/2025/02/eu-ai-act-first-rules-take-effect-on-prohibited-ai-systems

Krause, D. (2024). Artificial Intelligence and the Changing Political Landscape: The Impact of Trump's Return on AI Governance and Policy. November 12, SSRN. https://ssrn.com/abstract=5018240

Krause, D. (2025). The EU AI Act and the Future of AI Governance: Implications for U.S. Firms and Policymakers. March 17, SSRN. https://ssrn.com/abstract=5181797

Krause, D. and Krause, E. (2025). Auditing GenAI Systems: Ensuring Responsible Deployment. *Journal of Financial Transformation*, 60, 20-27. https://www.capco.com/Capco-Institute/journal-60-genai

Marcinek, K., Stanley, K.D., Smith, G., Cormarie, P. and Gunashekar, S. (2024). Risk-Based AI Regulation: A Primer on the Artificial Intelligence Act of the European Union. *RAND Corporation*. https://www.rand.org/pubs/research_reports/RRA3243-3.html

Mazzini, G. and Bagni, F. (2023). Considerations on the Regulation of AI Systems in the Financial Sector by the AI Act. *Frontiers in Artificial Intelligence*. https://pmc.ncbi.nlm.nih.gov/articles/PMC10676199/

NAVEX. (2025). EU AI Act Compliance Requirements. https://www.navex.com/en-us/solutions/regulations/eu-ai-act/

Peaden, V. (2024). EU AI Act Tightens Grip on High-Risk AI Systems. *Baker Donelson*. https://www.bakerdonelson.com/eu-ai-act-tightens-grip-on-high-riskai-systems-five-critical-questions-for-us-companies

Passador, M.L. (2024). Regulating AI in Finance: How the EU AI Act Shapes Financial Technology's Future. *Oxford Business Law Blog*, December 5. https://blogs.law.ox.ac.uk/oblb/blog-post/2024/12/regulating-ai-finance-how-eu-ai-act-shapes-financial-technologys-future

Sullivan, P. (2025). Preparing for EU AI Act Compliance with ISO 42001. *A-LIGN*. https://www.a-lign.com/articles/preparing-for-eu-ai-act-compliance

White House. (2025). Removing Barriers to American Leadership in Artificial Intelligence. https://www.whitehouse.gov/presidential-actions/2025/01/removing-barriers-to-american-leadership-in-artificial-intelligence/

White House. (2025). Executive Order on Artificial Intelligence: The End of Burdensome Compliance and a New Era of Innovation. https://www.whitehouse.gov/briefing-room/2025/01/28/executive-order-on-ai-innovation/

Cite this article as: David Krause and Eric Krause (2025). The EU AI Act's Impact on Artificial Intelligence Applications in Financial Services. *International Journal of Artificial Intelligence and Machine Learning*, 5(2), 43-50. doi: 10.51483/IJAIML.5.2.2025.43-50.