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(57) Abstract :
 The present invention discloses an innovative framework for artificial intelligence (AI) models, prioritizing transparency and interpretability in complex decision-making systems. Through a combination of interpretable feature selection, hierarchical representations, and real-time feedback mechanisms, the disclosed technology aims to bridge the gap between the inherent complexity of advanced AI models and the need for clear, understandable decision pathways. Noteworthy embodiments, such as dynamic decision threshold adjustment and explainable temporal context integration, further contribute to the adaptability and comprehensibility of the model. This invention addresses the critical challenge of AI model opacity, facilitating user trust and understanding across diverse industries, including healthcare, finance, and autonomous systems, thereby establishing a new standard for transparent and explainable AI decision support systems.

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