





Special Issue Reprint

# Advances in Artificial Intelligence: Models, Optimization, and Machine Learning, 2nd Edition

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The present book contains all the articles accepted and published in the Special Issue "Advances in Artificial Intelligence: Models, Optimization, and Machine Learning, 2nd Edition" of the MDPI *Mathematics* journal. The content of this Special Issue encompasses a diverse array of topics related to artificial intelligence, spanning both foundational theories and practical applications. It covers advancements in deep learning and machine learning techniques, including neural networks and reinforcement learning, as well as the growing field of federated learning. This issue also explores developments in natural language processing and multimodal data analysis, alongside optimization strategies inspired by evolutionary algorithms and probabilistic models, such as Gaussian processes. It also highlights research in feature selection and support vector machines, innovations in autonomous driving and trajectory prediction, and broader applications of artificial intelligence in decision-making and intelligent systems. We anticipate that the scientific findings presented in this volume will offer valuable references and inspiration to those eager to explore new frontiers in artificial intelligence, machine learning, and their extensive real-world applications.





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