Record Nr. UNINA9910845096603321 Autore Hazra Tanmoy Titolo Applications of Game Theory in Deep Learning / / by Tanmoy Hazra, Kushal Anjaria, Aditi Bajpai, Akshara Kumari Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2024 Pubbl/distr/stampa **ISBN** 9783031546532 3031546539 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (93 pages) Collana SpringerBriefs in Computer Science, , 2191-5776 Altri autori (Persone) AnjariaKushal BajpaiAditi KumariAkshara 006.31 Disciplina Soggetti Machine learning Game theory Artificial intelligence Machine Learning Game Theory Artificial Intelligence Aprenentatge automàtic Teoria de jocs Intel·ligència artificial Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia 1. Introduction -- 2. Cooperative Game Theory -- 3. Noncooperative Nota di contenuto Game Theory -- 4. Applications of Game Theory in Deep Neural Networks -- 5. Case Studies and Different Applications -- 6. Conclusion and Future Research Directions. This book aims to unravel the complex tapestry that interweaves Sommario/riassunto strategic decision-making models with the forefront of deep learning techniques. Applications of Game Theory in Deep Learning provides an extensive and insightful exploration of game theory in deep learning, diving deep into both the theoretical foundations and the real-world

applications that showcase this intriguing intersection of fields. Starting

with the essential foundations for comprehending both game theory and deep learning, delving into the individual significance of each field, the book culminates in a nuanced examination of Game Theory's pivotal role in augmenting and shaping the development of Deep Learning algorithms. By elucidating the theoretical underpinnings and practical applications of this synergistic relationship, we equip the reader with a comprehensive understanding of their combined potential. In our digital age, where algorithms and autonomous agents are becoming more common, the combination of game theory and deep learning has opened a new frontier of exploration. The combination of these two disciplines opens new and exciting avenues. We observe how artificial agents can think strategically, adapt to evershifting environments, and make decisions that are consistent with their goals and the dynamics of their surroundings. This book presents case studies, methodologies, and real-world applications.