1. Record Nr. UNINA9910557482703321

Titolo	Agricultural Water Conservation: Tools, Strategies, and Practices
Pubbl/distr/stampa	Basel, Switzerland : , : MDPI - Multidisciplinary Digital Publishing Institute, , 2021
Descrizione fisica	1 electronic resource (242 pages)
Soggetti	Research Biology Technology Engineering Agriculture
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Water scarcity is a critical issue for agriculture, and, hence, efficient management and conservation practices for agricultural water use are essential for adapting to and mitigating the impacts of current and future discrepancy between water supplies and water demands. This Special Issue focuses on “Agricultural Water Conservation: Tools, Strategies, and Practices”, which aims to bring together a collection of recent cutting-edge research and advancements in agricultural water conservation. The Special Issue intends to give a broad overview focusing on on-farm water conservation practices, advanced irrigation tools and water technologies, and the best management practices and strategies for efficient water use in agriculture.

2.

Record Nr.	UNINA9910770270703321
Autore	Hu Michael
Titolo	The Art of Reinforcement Learning : Fundamentals, Mathematics, and Implementations with Python / / by Michael Hu
Pubbl/distr/stampa	Berkeley, CA : , : Apress : , : Imprint : Apress, , 2023
ISBN	9781484296066 1484296060
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (290 pages)
Disciplina	006.31
Soggetti	Reinforcement learning Feedback control systems Python (Computer program language)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Part I: Foundation -- Chapter 1: Introduction to Reinforcement Learning -- Chapter 2: Markov Decision Processes -- Chapter 3: Dynamic Programming -- Chapter 4: Monte Carlo Methods -- Chapter 5: Temporal Difference Learning -- Part II: Value Function Approximation -- Chapter 6: Linear Value Function Approximation -- Chapter 7: Nonlinear Value Function Approximation -- Chapter 8: Improvement to DQN -- Part III: Policy Approximation -- Chapter 9: Policy Gradient Methods -- Chapter 10: Problems with Continuous Action Space -- Chapter 11: Advanced Policy Gradient Methods -- Part IV: Advanced Topics -- Chapter 12: Distributed Reinforcement Learning -- Chapter 13: Curiosity-Driven Exploration -- Chapter 14: Planning with a Model – AlphaZero.
Sommario/riassunto	Unlock the full potential of reinforcement learning (RL), a crucial subfield of Artificial Intelligence, with this comprehensive guide. This book provides a deep dive into RL's core concepts, mathematics, and practical algorithms, helping you to develop a thorough understanding of this cutting-edge technology. Beginning with an overview of fundamental concepts such as Markov decision processes, dynamic programming, Monte Carlo methods, and temporal difference learning, this book uses clear and concise examples to explain the basics of RL

theory. The following section covers value function approximation, a critical technique in RL, and explores various policy approximations such as policy gradient methods and advanced algorithms like Proximal Policy Optimization (PPO). This book also delves into advanced topics, including distributed reinforcement learning, curiosity-driven exploration, and the famous AlphaZero algorithm, providing readers with a detailed account of these cutting-edge techniques. With a focus on explaining algorithms and the intuition behind them, The Art of Reinforcement Learning includes practical source code examples that you can use to implement RL algorithms. Upon completing this book, you will have a deep understanding of the concepts, mathematics, and algorithms behind reinforcement learning, making it an essential resource for AI practitioners, researchers, and students. You will: Grasp fundamental concepts and distinguishing features of reinforcement learning, including how it differs from other AI and non-interactive machine learning approaches Model problems as Markov decision processes, and how to evaluate and optimize policies using dynamic programming, Monte Carlo methods, and temporal difference learning Utilize techniques for approximating value functions and policies, including linear and nonlinear value function approximation and policy gradient methods Understand the architecture and advantages of distributed reinforcement learning Master the concept of curiosity-driven exploration and how it can be leveraged to improve reinforcement learning agents Explore the AlphaZero algorithm and how it was able to beat professional Go players.