1. Record Nr. UNINA9910466478703321

Autore	Lanham Micheal
Titolo	Learn Unity ML-Agents : fundamentals of Unity machine learning : incorporate new powerful ML algorithms such as deep reinforcement learning for games / / Michael Lanham
Pubbl/distr/stampa	Birmingham ; ; Mumbai : , : Packt, , 2018
ISBN	1-78913-186-3
Edizione	[1st edition]
Descrizione fisica	1 online resource (197 pages) : illustrations
Disciplina	794.81526
Soggetti	Computer games - Programming Machine learning Application software - Development Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Transform games into environments using machine learning and Deep learning with Tensorflow, Keras, and Unity About This Book Learn how to apply core machine learning concepts to your games with Unity Learn the Fundamentals of Reinforcement Learning and Q-Learning and apply them to your games Learn How to build multiple asynchronous agents and run them in a training scenario Who This Book Is For This book is intended for developers with an interest in using Machine learning algorithms to develop better games and simulations with Unity. The reader will be required to have a working knowledge of C# and a basic understanding of Python. What You Will Learn Develop Reinforcement and Deep Reinforcement Learning for games. Understand complex and advanced concepts of reinforcement learning and neural networks Explore various training strategies for cooperative and competitive agent development Adapt the basic script components of Academy, Agent, and Brain to be used with Q Learning. Enhance the Q Learning model with improved training strategies such as Greedy-Epsilon exploration Implement a simple NN with Keras and use it as an external brain in Unity Understand how to add LTSM blocks to an

existing DQN Build multiple asynchronous agents and run them in a training scenario In Detail Unity Machine Learning agents allow researchers and developers to create games and simulations using the Unity Editor, which serves as an environment where intelligent agents can be trained with machine learning methods through a simple-to-use Python API. This book takes you from the basics of Reinforcement and Q Learning to building Deep Recurrent Q-Network agents that cooperate or compete in a multi-agent ecosystem. You will start with the basics of Reinforcement Learning and how to apply it to problems. Then you will learn how to build self-learning advanced neural networks with Python and Keras/TensorFlow. From there you move o n to more advanced training scenarios where you will learn further innovative ways to train your network with A3C, imitation, and curriculum learning models. By the end of the book, you will have learned how to build more complex environments by building a cooperative and competitive multi-agent ecosystem. Style and approach This book focuses on the foundations of ML, RL and DL for building agents in a game or simulation

2. Record Nr. UNINA9910502977503321

Autore	Mitteregger Mathias
Titolo	AVENUE21. Connected and Automated Driving / / Mathias Mitteregger [et al.]
Pubbl/distr/stampa	Berlin, Heidelberg, : Springer Berlin / Heidelberg, 2021
ISBN	3-662-64140-2
Descrizione fisica	1 online resource xiv, 179 pages : illustrations (some color)
Altri autori (Persone)	BruckEmilia M SoteropoulosAggelos StricklerAndrea BergerMartin DangschatJens ScheuvensRudolf BanerjeeIan
Soggetti	Automated vehicles Automated vehicles - Europe Intelligent transportation systems Intelligent transportation systems - Europe Transportation - Automation Urban transportation - Planning

Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Connected and automated transport Approach and key areas of focus Status quo Connected and automated transport in the Long Level 4 Shaping change at the local level during the transition period Action plans Research team Bibliography
Sommario/riassunto	"This open access publication examines the impact of connected and automated vehicles on the European city and the conditions that can enable this technology to make a positive contribution to urban development. The authors argue for two theses that have thus far received little attention in scientific discourse: as connected and automated vehicles will not be ready for use in all parts of the city for a long time, previously assumed effects - from traffic safety to traffic performance as well as spatial effects - will need to be re-evaluated. To ensure this technology has a positive impact on the mobility of the future, transport and settlement policy regulations must be adapted and further developed. Established territorial, institutional and organizational boundaries must be investigated and challenged quickly. Despite - or, indeed, because of - the many uncertainties, we find ourselves at the beginning of a new design phase, not only in terms of technology development, but also regarding politics, urban planning, administration and civil society."-- Provided by publisher