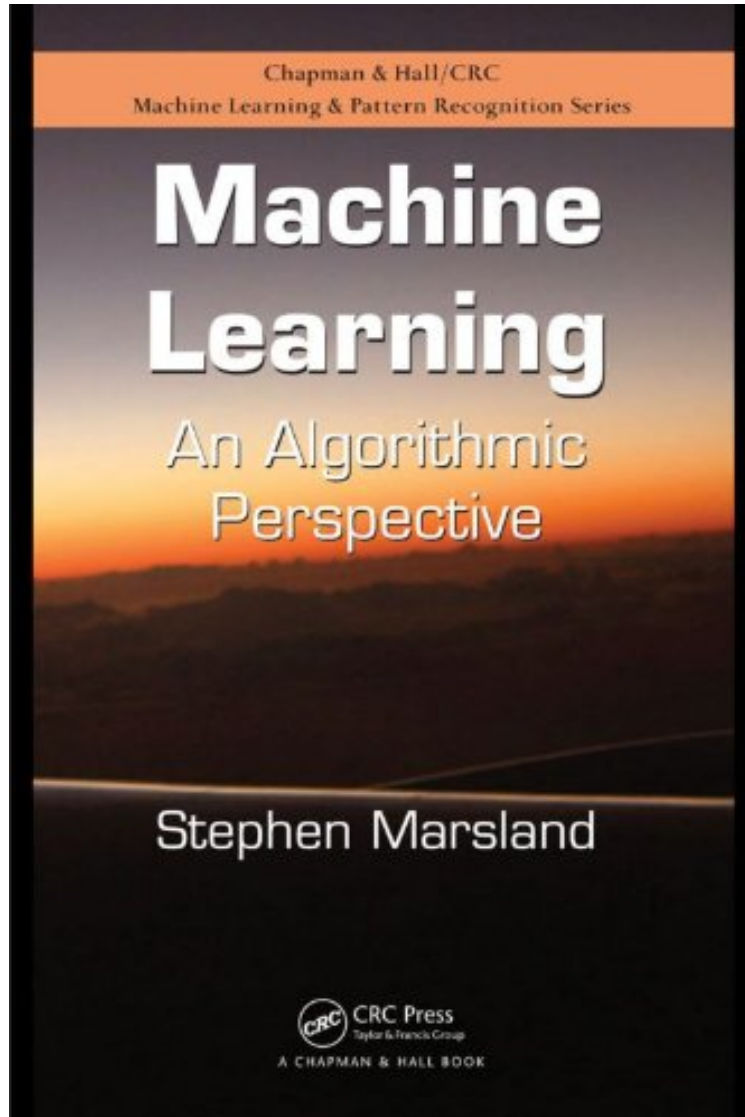


[Download] Machine Learning: An Algorithmic Perspective

# Machine Learning: An Algorithmic Perspective

Von Stephen Marsland

\*Download PDF | ePub | DOC | audiobook | ebooks



[Download](#)

[Read Online](#)

Produktinformation -Verkaufsrank: #785245 in eBooksVerffentlicht am: 2011-03-23Erscheinungsdatum: 2011-03-23File Name: B005H6YE18 | File size: 47.Mb

**Von Stephen Marsland : Machine Learning: An Algorithmic Perspective** before purchasing it in order to gage whether or not it would be worth my time, and all praised Machine Learning: An Algorithmic Perspective:

KundenrezensionenHilfreichste Kundenrezensionen0 von 0 Kunden fanden die folgende Rezension hilfreich. Super fr Python ProgrammiererVon M. HechtIch beschfige mich schon seit Jahren mit dem Thema Machine Learning und hatte das Buch schon eine Weile. Da ich nun viel mit Phyton programmiere, fiel mir das Buch wieder in die Hand. JA, um zu verthehen, was Machine Learning und Data Mining eigentlich ist, ist dieses Buch sicher weniger geeignet. Allerdings lassen sich alle Codes direkt in Python nutzen und deren prinzipielle Funktionalitt kann man im Buch mit

Hintergrundinformationen nachlesen. Es gibt zwar jede Menge Machine Learning Bibliotheken im Web, aber deren Anwendung ist oftmals beraus fummelig und es gibt meist jede Menge Abhngigkeiten von anderen Bibliotheken oder seltsame Datenformate, etc.. Hier gibt es pures Python fr eigenen Anwendungen, daher volle Punktzahl.3 von 6 Kunden fanden die folgende Rezension hilfreich. Zweng und zviel is Narrenziel.Von Dr. Chrilly DonningerNimmt man die Mathematisierung der Texte als Massstab her, dann ist ein Grossteil der modernen Wissenschaftsliteratur von Narren geschrieben. Wobei das zviel berwiegt. In diesem Buch ist der Autor aber eher auf der zweng Seite gelandet. Wie er im Vorwort berichtet, hlt er fr Computer-Science Studenten Machine-Learning Kurse ab. Die Studenten steigen bei der blichen zviel Literatur aus. Also hat er bewusst ein vollkommen unmathematisches Buch geschrieben. Teilweise schttet er aber das Kind mit dem Bade aus. Wie er selbst anmerkt, ist es manchmal sehr schwierig eine relativ simple Formel rein verbal darzustellen. Da hab ich ihm im Geiste zugerufen "Oida, des is so einfach, dass werden a deine Computer-Heinis als Formel verstehn". Ich habe einst Statistik-Vorlesungen fr Sozialwissenschaftler gehalten und kenne die Problematik nur zu gut. Als Kompromiss gabs bei mir 1 Formel pro Stunde.Marsland erklrt die Algorithmen stattdessen mit Python Kode. Man kann sich - bis auf Support Vector Machines - den vollstndigen Kode von der homepage des Autors herunterladen. Im Buch selbst werden allerdings nur die High-Level Methodennamen abgedruckt. Im Grunde nhert sich diese Darstellung einer sehr abstrakten mathematischen Methode an. Aus dem Aufruf "kmeanstran(test)" lernt man auch nicht, wie K-Means Clustering wirklich funktioniert.In R.Quinlan, C4.5 Programs for Machine-Learning ist z.B. eine sehr nette "shuffle" Routine zum Durchmischen des Inputs abgedruckt. Shuffle taucht in modernen Statistischen Verfahren an allen Ecken und Enden auf (bootstrap, boosting, bragging...). In diesem Buch wird "shuffle" auch aufgerufen. Man erfhrt aber nicht, wie shuffle funktioniert. Man knnte im Kode nachschauen. Im Quinlan Buch habe ich es getan. Weil es abgedruckt war. Im Marsland Kode habe ich mich nicht durch den Python Kode zu shuffle durchgeschlagen.Trotz dieser Kritik ist das Buch eine ganz nette Einfhrgung in das Gebiet. Die beiden Bcher von Witten und Quinlan haben mir aber besser gefallen. Sie sind zumindest fr meinen Geschmack narrenfrei.Witten H., Frank E., Hall M., Data Mining, Practical Machine Learning Tools and TechniquesQuinlan R., C4.5 Programs for Machine Learning.

KurzbeschreibungTraditional books on machine learning can be divided into two groups those aimed at advanced undergraduates or early postgraduates with reasonable mathematical knowledge and those that are primers on how to code algorithms. The field is ready for a text that not only demonstrates how to use the algorithms that make up machine learning methods, but also provides the background needed to understand how and why these algorithms work. Machine Learning: An Algorithmic Perspective is that text.Theory Backed up by Practical ExamplesThe book covers neural networks, graphical models, reinforcement learning, evolutionary algorithms, dimensionality reduction methods, and the important area of optimization. It treads the fine line between adequate academic rigor and overwhelming students with equations and mathematical concepts. The author addresses the topics in a practical way while providing complete information and references where other expositions can be found. He includes examples based on widely available datasets and practical and theoretical problems to test understanding and application of the material. The book describes algorithms with code examples backed up by a website that provides working implementations in Python. The author uses data from a variety of applications to demonstrate the methods and includes practical problems for students to solve.Highlights a Range of Disciplines and ApplicationsDrawing from computer science, statistics, mathematics, and engineering, the multidisciplinary nature of machine learning is underscored by its applicability to areas ranging from finance to biology and medicine to physics and chemistry. Written in an easily accessible style, this book bridges the gaps between disciplines, providing the ideal blend of theory and practical, applicable knowledge.Pressestimmen... liberally illustrated with many programming examples, using Python. It includes a basic primer on Python and has an accompanying website. It has excellent breadth, and is comprehensive in terms of the topics it covers, both in terms of methods and in terms of concepts and theory. ... I think the author has succeeded in his aim: the book provides an accessible introduction to machine learning. It would be excellent as a first exposure to the subject, and would put the various ideas in context ... This book also includes the first occurrence I have seen in print of a reference to a zettabyte of data (10<sup>21</sup> bytes) - a reference to "all the world's computers" being estimated to contain almost a zettabyte by 2010. -David J. Hand, International Statistical (2010), 78 If you are interested in learning enough AI to understand the sort of new techniques being introduced into Web 2 applications, then this is a good place to start. ... it covers the subject matter of many an introductory course on AI and it has references to the source material and further reading but it is written in a fairly casual style. Overall it works and much of the mathematics is explained in ways that make it fairly clear what is going on ... . This is a suitable introduction to AI if you are studying the subject on your own and it would make a good course text for an introduction and overview of AI. -I-Programmer, November 2009KurzbeschreibungTraditional books on machine learning can be divided into two groups those aimed at advanced undergraduates or early postgraduates with reasonable mathematical knowledge and those that are primers on how to code algorithms. The field is ready for a text

that not only demonstrates how to use the algorithms that make up machine learning methods, but also provides the background needed to understand how and why these algorithms work. *Machine Learning: An Algorithmic Perspective* is that text. **Theory Backed up by Practical Examples** The book covers neural networks, graphical models, reinforcement learning, evolutionary algorithms, dimensionality reduction methods, and the important area of optimization. It treads the fine line between adequate academic rigor and overwhelming students with equations and mathematical concepts. The author addresses the topics in a practical way while providing complete information and references where other expositions can be found. He includes examples based on widely available datasets and practical and theoretical problems to test understanding and application of the material. The book describes algorithms with code examples backed up by a website that provides working implementations in Python. The author uses data from a variety of applications to demonstrate the methods and includes practical problems for students to solve. **Highlights a Range of Disciplines and Applications** Drawing from computer science, statistics, mathematics, and engineering, the multidisciplinary nature of machine learning is underscored by its applicability to areas ranging from finance to biology and medicine to physics and chemistry. Written in an easily accessible style, this book bridges the gaps between disciplines, providing the ideal blend of theory and practical, applicable knowledge.