Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series)

By Kevin P. Murphy

Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) By Kevin P. Murphy

Today's Web-enabled deluge of electronic data calls for automated methods of data analysis. Machine learning provides these, developing methods that can automatically detect patterns in data and then use the uncovered patterns to predict future data. This textbook offers a comprehensive and self-contained introduction to the field of machine learning, based on a unified, probabilistic approach. The coverage combines breadth and depth, offering necessary background material on such topics as probability, optimization, and linear algebra as well as discussion of recent developments in the field, including conditional random fields, L1 regularization, and deep learning. The book is written in an informal, accessible style, complete with pseudo-code for the most important algorithms. All topics are copiously illustrated with color images and worked examples drawn from such application domains as biology, text processing, computer vision, and robotics. Rather than providing a cookbook of different heuristic methods, the book stresses a principled model-based approach, often using the language of graphical models to specify models in a concise and intuitive way. Almost all the models described have been implemented in a MATLAB software package -- PMTK (probabilistic modeling toolkit) -- that is freely available online. The book is suitable for upper-level undergraduates with an introductory-level college math background and beginning graduate students.

Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series)

By Kevin P. Murphy

Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series)
By Kevin P. Murphy

Today's Web-enabled deluge of electronic data calls for automated methods of data analysis. Machine learning provides these, developing methods that can automatically detect patterns in data and then use the uncovered patterns to predict future data. This textbook offers a comprehensive and self-contained introduction to the field of machine learning, based on a unified, probabilistic approach. The coverage combines breadth and depth, offering necessary background material on such topics as probability, optimization, and linear algebra as well as discussion of recent developments in the field, including conditional random fields, L1 regularization, and deep learning. The book is written in an informal, accessible style, complete with pseudo-code for the most important algorithms. All topics are copiously illustrated with color images and worked examples drawn from such application domains as biology, text processing, computer vision, and robotics. Rather than providing a cookbook of different heuristic methods, the book stresses a principled model-based approach, often using the language of graphical models to specify models in a concise and intuitive way. Almost all the models described have been implemented in a MATLAB software package -- PMTK (probabilistic modeling toolkit) -- that is freely available online. The book is suitable for upper-level undergraduates with an introductory-level college math background and beginning graduate students.

Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) By Kevin P. Murphy Bibliography

- Sales Rank: #22280 in Books
- Brand: imusti
- Published on: 2012-08-24
- Original language: English
- Number of items: 1
- Dimensions: 9.00" h x 1.38" w x 8.00" l, 4.30 pounds
- Binding: Hardcover
- 1104 pages

⬇ **Download** Machine Learning: A Probabilistic Perspective (Ada ...pdf

📄 **Read Online** Machine Learning: A Probabilistic Perspective (A ...pdf

Download and Read Free Online Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) By Kevin P. Murphy

Editorial Review

Review

An astonishing machine learning book: intuitive, full of examples, fun to read but still comprehensive, strong and deep! A great starting point for any university student -- and a must have for anybody in the field.

(**Jan Peters**, Darmstadt University of Technology; Max-Planck Institute for Intelligent Systems)

Kevin Murphy excels at unraveling the complexities of machine learning methods while motivating the reader with a stream of illustrated examples and real world case studies. The accompanying software package includes source code for many of the figures, making it both easy and very tempting to dive in and explore these methods for yourself. A must-buy for anyone interested in machine learning or curious about how to extract useful knowledge from big data.

(**John Winn**, Microsoft Research, Cambridge)

This is a wonderful book that starts with basic topics in statistical modeling, culminating in the most advanced topics. It provides both the theoretical foundations of probabilistic machine learning as well as practical tools, in the form of Matlab code.The book should be on the shelf of any student interested in the topic, and any practitioner working in the field.

(**Yoram Singer**, Google Inc.)

This book will be an essential reference for practitioners of modern machine learning. It covers the basic concepts needed to understand the field as whole, and the powerful modern methods that build on those concepts. In *Machine Learning*, the language of probability and statistics reveals important connections between seemingly disparate algorithms and strategies.Thus, its readers will become articulate in a holistic view of the state-of-the-art and poised to build the next generation of machine learning algorithms.

(**David Blei**, Princeton University)

This comprehensive book should be of great interest to learners and practitioners in the field of machine learning.

(*British Computer Society*)

About the Author
Kevin P. Murphy is a Research Scientist at Google. Previously, he was Associate Professor of Computer Science and Statistics at the University of British Columbia.

Users Review

From reader reviews:

Enrique Hayes:

Why don't make it to become your habit? Right now, try to ready your time to do the important work, like looking for your favorite e-book and reading a e-book. Beside you can solve your trouble; you can add your knowledge by the guide entitled Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series). Try to face the book Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) as your good friend. It means that it can to become your friend when you feel alone and beside those of course make you smarter than previously. Yeah, it is very fortuned to suit your needs. The book makes you far more confidence because you can know almost everything by the book. So , we should make new experience along with knowledge with this book.

Thomas Paine:

The book Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) make you feel enjoy for your spare time. You can use to make your capable far more increase. Book can being your best friend when you getting tension or having big problem with the subject. If you can make reading through a book Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) to get your habit, you can get more advantages, like add your current capable, increase your knowledge about many or all subjects. It is possible to know everything if you like wide open and read a e-book Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series). Kinds of book are several. It means that, science book or encyclopedia or other individuals. So , how do you think about this e-book?

Tanya McGaha:

Reading can called brain hangout, why? Because if you find yourself reading a book mainly book entitled Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) your mind will drift away trough every dimension, wandering in every aspect that maybe not known for but surely will become your mind friends. Imaging each and every word written in a book then become one type conclusion and explanation that will maybe you never get ahead of. The Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) giving you one more experience more than blown away your mind but also giving you useful info for your better life with this era. So now let us explain to you the relaxing pattern the following is your body and mind will probably be pleased when you are finished examining it, like winning a sport. Do you want to try this extraordinary paying spare time activity?

Mitchell Wilder:

Publication is one of source of understanding. We can add our understanding from it. Not only for students but native or citizen want book to know the up-date information of year to help year. As we know those ebooks have many advantages. Beside we add our knowledge, may also bring us to around the world. By the

book Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) we can take more advantage. Don't you to definitely be creative people? Being creative person must prefer to read a book. Merely choose the best book that suited with your aim. Don't always be doubt to change your life at this time book Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series). You can more pleasing than now.

Download and Read Online Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) By Kevin P. Murphy #YWL56T2KP3Q

Read Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) By Kevin P. Murphy for online ebook

Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) By Kevin P. Murphy Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) By Kevin P. Murphy books to read online.

Online Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) By Kevin P. Murphy ebook PDF download

Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) By Kevin P. Murphy Doc

Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) By Kevin P. Murphy Mobipocket

Machine Learning: A Probabilistic Perspective (Adaptive Computation and Machine Learning series) By Kevin P. Murphy EPub