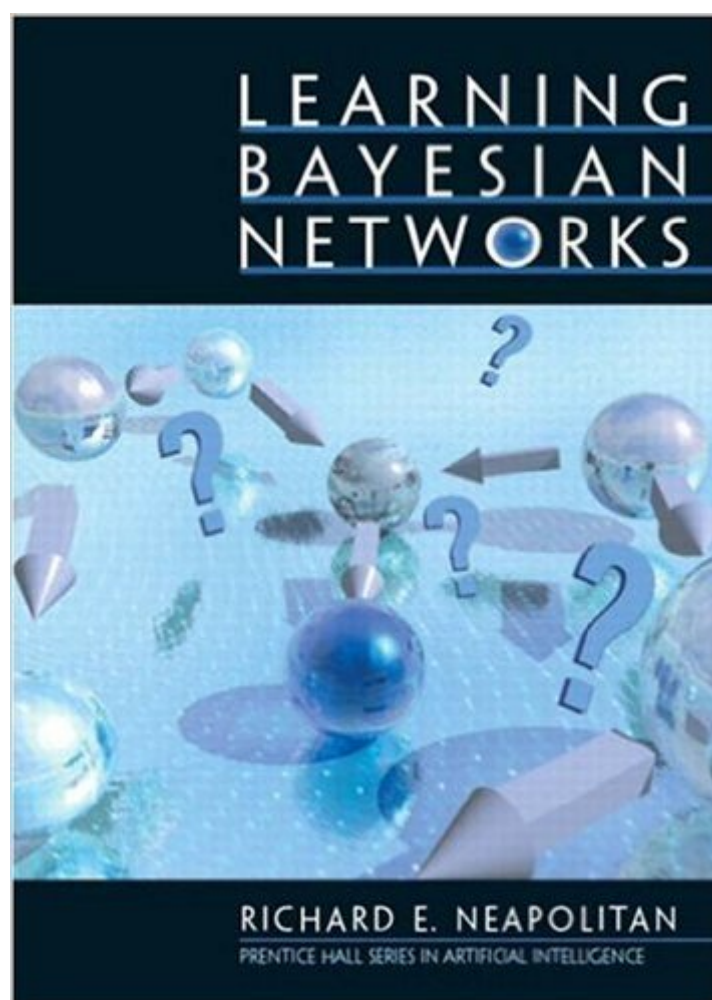


The book was found

# Learning Bayesian Networks



## Synopsis

In this first edition book, methods are discussed for doing inference in Bayesian networks and inference diagrams. Hundreds of examples and problems allow readers to grasp the information. Some of the topics discussed include Pearl's message passing algorithm, Parameter Learning: 2 Alternatives, Parameter Learning r Alternatives, Bayesian Structure Learning, and Constraint-Based Learning. For expert systems developers and decision theorists.

## Book Information

Hardcover: 674 pages

Publisher: Pearson (April 6, 2003)

Language: English

ISBN-10: 0130125342

ISBN-13: 978-0130125347

Product Dimensions: 7 x 1.6 x 8.9 inches

Shipping Weight: 2.5 pounds (View shipping rates and policies)

Average Customer Review: 4.8 out of 5 stars [See all reviews](#) (5 customer reviews)

Best Sellers Rank: #665,423 in Books (See Top 100 in Books) #86 in [Books > Computers & Technology > Computer Science > AI & Machine Learning > Neural Networks](#) #206 in [Books > Textbooks > Computer Science > Artificial Intelligence](#) #456 in [Books > Computers & Technology > Computer Science > AI & Machine Learning > Intelligence & Semantics](#)

## Customer Reviews

In just a decade, Bayesian networks have went from being a mere academic curiosity to a highly useful field with myriads of applications. Indeed, the applications of Bayesian networks are wide-ranging and include disparate fields such as network engineering, bioinformatics, medical diagnostics, and intelligent troubleshooting. This book gives a fine overview of the subject, and after reading it one will have an in-depth understanding of both the underlying foundations and the algorithms involved in using Bayesian networks. The reader will have to look elsewhere for applications of Bayesian networks, since they are only discussed briefly in the book. Due to space constraints, only the first four chapters will be reviewed here. The author defines a Bayesian network as a graphical structure for representing the probabilistic relationship among a large number of variables and for performing probabilistic inference with these variables. Before the advent of Bayesian networks, probabilistic inference depended on the use of Bayes' theorem, which entailed that the problems examined be relatively simple, due to the exponential space and time complexity

that can arise in the application of this theorem. After a short review of probability theory in chapter 1, a discussion of the "philosophical" foundations of probability, and a discussion of the difficulties inherent in representing large instances and in performing inference over a large number of variables, the author introduces Bayesian networks as directed acyclic graphs satisfying the Markov condition. A brief discussion of NasoNet, which is a large-scale Bayesian network used in the diagnosis and prognosis of nasopharyngeal cancer, is given.

[Download to continue reading...](#)

Learning Bayesian Networks  
Deep Learning: Natural Language Processing in Python with Recursive Neural Networks: Recursive Neural (Tensor) Networks in Theano (Deep Learning and Natural Language Processing Book 3)  
Modeling and Reasoning with Bayesian Networks  
Implementing Cisco IP Switched Networks (SWITCH) Foundation Learning Guide: Foundation learning for SWITCH 642-813 (Foundation Learning Guides)  
Deep Learning: Recurrent Neural Networks in Python: LSTM, GRU, and more RNN machine learning architectures in Python and Theano (Machine Learning in Python)  
Unsupervised Deep Learning in Python: Master Data Science and Machine Learning with Modern Neural Networks written in Python and Theano (Machine Learning in Python)  
Convolutional Neural Networks in Python: Master Data Science and Machine Learning with Modern Deep Learning in Python, Theano, and TensorFlow (Machine Learning in Python)  
Deep Learning in Python: Master Data Science and Machine Learning with Modern Neural Networks written in Python, Theano, and TensorFlow (Machine Learning in Python)  
Bayesian Reasoning and Machine Learning  
Doing Bayesian Data Analysis: A Tutorial with R and BUGS  
A First Course in Bayesian Statistical Methods (Springer Texts in Statistics)  
Bayesian Speech and Language Processing  
Bayesian Computation with R (Use R!)  
Deep Learning for Business with R: A Very Gentle Introduction to Business Analytics Using Deep Neural Networks  
Deep Learning Step by Step with Python: A Very Gentle Introduction to Deep Neural Networks for Practical Data Science  
Artificial Intelligence for Humans, Volume 3: Deep Learning and Neural Networks  
Deep Learning Neural Networks: Design and Case Studies  
Neural Smithing: Supervised Learning in Feedforward Artificial Neural Networks (MIT Press)  
Innovation in Open and Distance Learning: Successful Development of Online and Web-based Learning (Open and Flexible Learning Series)  
Implementing Cisco IP Routing (ROUTE) Foundation Learning Guide: Foundation learning for the ROUTE 642-902 Exam (Foundation Learning Guides)

[Dmca](#)