Amazon Customer reviews of "Risk Assessment and Decision Analysis with Bayesian Networks", by Norman Fenton and Martin Neil, CRC Press 2012

Updated 1 April 2014

Reviews On Amazon.com

5.0 out of 5 stars **The single most important book on Bayesian methods for decision analysts**, March 19, 2014

By
Douglas W. Hubbard (Glen Ellyn, IL)

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

Fenton and Neil have successfully made a "crossover" book that reaches broad audiences on a topic which is too often presented in a dry and esoteric manner. It is rich with illustrations, interesting examples, debunking of common fallacies, and a passionate philosophical position on Bayesian methods vs. the "frequentist" methods common in statistics.

This book is a comprehensive treatment of Bayesian methods but focuses on the particularly powerful models that can be made when conditional probabilities are presented in networks. The authors present a complete algebra of Bayesian networks using both formal expressions and simple diagrams so that almost any reader can be comfortable with the topic. This book does not assume that the reader has even basic training in probabilistic methods (it has a chapter on the basics of probability) but it also does not compromise on substantive content. The reader seeking basic explanations will not feel excluded and the reader seeking more advanced treatments will be satisfied as well.

This is exactly the sort of rigorous thinking that needs to displace the "softer" methods more common in risk assessment and decision analysis. It is presented as an entirely practical solution for managers, not an abstract, academic exercise. The "best practices" committees for PMBOK, ISO, Cobit and managers everywhere would be well advised to read this book before inventing yet another risk assessment or decision analysis method based on fluffy scores.

Doug Hubbard
Author of How to Measure Anything (2007, 2010, 2014), The Failure of Risk Management (2009) and Pulse (2011)

4.0 out of 5 stars **Great book**, February 28, 2014

By
Emmanuel A

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

The book is near excellent for those who do not understand risk analysis and assessment; easy to read and understand. I did not give excellent due to one or two typing errors. I will recommend it if you really want to understand the subject indicated in the book title.

5.0 out of 5 stars **I learned a lot**, January 31, 2014

By
Sean Schaefer (Kansas City) - See all my reviews
(REAL NAME)

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

This book was fantastic! It had everything I wanted to know about understanding Bayesian networks in addition to tangible examples to make learning the material easy. I read this cover to cover twice and felt that it really laid out the material in a way that built on previous chapters. Also it contains an excellent appendix to help understand some of the algorithms used by AgenaRisk as well as a basic introduction to combintorics. I would high recommend this book.

4.0 out of 5 stars **Remarkable**, December 25, 2013

By
Dimitri Shvorob -
(REAL NAME)

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

It is not often that I come across such an original and substantial book, which talks accessibly about a subject that I have previously seen covered only by dry, technical monographs. (In this case, "Risk assessment" followed "Bayesian networks with R" and "Graphical models with R" - ouch). I very much appreciate the authors' contribution, and enthusiastically recommend the book to anyone interested in Bayesian networks.

I do not give the book five stars based on perceived editorial blemishes, which will hopefully be fixed in second edition. (Materially, chapters 9-10 do not develop the continuous-prior case; chapter 10 can be considered altogether tangential, and chapter 13 is an example of unnecessary repetition. The text could be tightened up, and visual presentation improved).

4.0 out of 5 stars **Book is fine. Amazon fulfillment is not.**, September 17, 2013

By
Jan Galkowski "Jan Galkowski" (Westwood, MA USA) - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

The textbook I ordered is very fine, and I expect to learn a lot from it. However, the book was received with the front leaf in the book creased. Otherwise, the book appears to be in fine shape. Pages do stick together a bit.

I know I could return the book to Amazon for a replacement, but Amazon's return policy is very expensive in environmental impact, and I refuse to incur that just to replace a book with a creased inside leaf. Amazon has no facility whereby you can get a small discount if there is damage.

Despite their pretty good prices, there seems to be quite a markup by Amazon, for I have purchased books elsewhere, closer to the publisher and from small publishers for much less than what Amazon's charges for the same. The point of that is that you would think Amazon would be more understanding and flexible about the inevitable shipping and product quirks than they are, with these markups.

4.0 out of 5 stars **Good Book on Decision Making**, August 7, 2013

By
Kevin S. Gray "Marketing Science and Analytic...
(REAL NAME)

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

Though "Risk Assessment and Decision Analysis with Bayesian Networks" (Fenton and Neil) is centered around using BN as a tool for making decisions, I think the book's value is broader than this. There are many practical guidelines and examples of how we can make decisions more scientifically. It's also very well organized and well written and technical discussions are largely confined to special sections and appendices.

5.0 out of 5 stars **Where has this book been all my life?**, July 27, 2013

By
Serac (Tucson, AZ USA)

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

So, I must admit. This book is nothing like what I expected when I ordered it. Having a background in engineering, many statistics classes (some graduate level), and experience with other types of "networks," I was expecting a fairly tough book filled with theorems, equations, and trivial first-principle examples.

Was I ever wrong. Instead, this book discusses Bruce Willis blowing up a meteor, game shows, the author sleeping too long and missing work, and scenarios in Agatha Christie novels. In my stuffy statistics classes, Bayesian statistics was explained as something not short of gnosticism - that if you didn't get it already, it was not worth explaining. I used Bayes' Theorem for simple problems, but for nothing very practical - practical implementation was too difficult.

It is a sign that someone knows a complex subject very well: Explain it simply enough (and still be correct) so that a bright grade-school child would understand. This is exactly that the authors have done. The appealing and simple approach to this book hides the fact that they to an amazingly good job at explaining Bayesian statistics. The light subjects I mentioned in the paragraph above should be taken that these authors do a tremendous job at explaining themselves, not that this book is a pushover, or is simple or pedestrian.

If you, like me, have always wished that someone would have taken the time to explain Bayesian statistics to you, or if you are somewhat experienced in statistics but feel like you need more (or see the holes that these authors point out), then this book is for you. If you are looking for a book filled with proofs and theorems, or if you like authors that make themselves sound smart by intimidation and shock-and-awe, then skip this book. This book is the real deal.

5.0 out of 5 stars **Excellent Introduction to Probability and Bayes**, February 18, 2013

By
Rich: Information Security Practitioner

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

The authors explain in simple, readily accessible terms both the basics of probability theory and Bayesian approaches with an emphasis on Bayesian Networks. I wish there were more exercises, but that does not seem to be the purpose of this book - so no demerits. If you are looking for a next step, hands on Bayesian tutorial try "Doing Bayesian Analysis: A Tutorial with R and Bugs". This latter books assumes a bit of programming chops, but not much.

5.0 out of 5 stars **A comprehensive guide through probability and Bayesian networks**, January 11, 2013

By
Eugene

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

What I liked most about this book is how it starts off with giving a general introduction into probabilistic and causal reasoning, and then goes on into more detail on probability and, eventually, more complex mathematics, thus making it a perfect choice for both beginners and scholars of probability.

This is the textbook, which is suitable to everyone who really wants to see the Bayesian networks for the most useful tools they are. It does not just throw some abstract ideas at you, but rather builds on a series of real life examples, and provides an opportunity to actually try building some Bayesian models yourself, guiding the reader through the process.

Adding to that, the idea that this book comes with a very powerful software tool makes the offer even more appealing.

5.0 out of 5 stars **Excellent, very practical and helpful book!**, January 4, 2013

By
Eric C. Maass (Scottsdale, Arizona) –

(REAL NAME)

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

I have long been a fan of AgenaRisk for Bayesian Belief Networks, but didn't know what I didn't know about the theory and applications.

This new book opened my eyes, and also provided the opportunity for others to get hands-on experience with the scaled-down version of AgenaRisk.

I have been actively and enthusiastically recommending this book in Medtronic - and those who have purchased and started reading the book are echoing my enthusiasm and recommendation to others.

The book is well written, with accessible, informative, and often humorous examples that stimulate thought and understanding while keeping the reader grounded in the uses for the methodology.

Highly recommended!

5.0 out of 5 stars **Excellent Bayesian Starting Point**, December 31, 2012

By
Mark Porter - **Amazon Verified Purchase**

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

I found the book very well-written and easy to digest, finishing it in only a few days. Experts in Bayesian statistics may find the material too simple, but for newcomers to the field, the

underlying principles are covered in a manner that makes the statistics accessible and useful. There are many practical suggestions for building Bayesian networks, and the ability to work through the examples with the related software is quite beneficial. I suspect I will be referring back to this book often.

5.0 out of 5 stars **Really useful**, December 25, 2012

By
Alan Spodick **-This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)**

I've tried reading a few books on Bayesian networks but this is the first one that I've actually understood because it does not assume that you are already a specialist in stats and probability theory. In fact there is a lot more to the book than Bayesian networks because it really does cover probability theory and risk assessment from scratch. It is written in an easy to understand way (the more difficult math appears in boxes which you can bypass on first reading) and it is even quite humorous in places.
One of the best things about the book is that you actually get to be able to run all the Bayesian network models in it - buyers get to download a free copy of the AgenaRisk software - when I registered for it I was asked for a word on a particular page, which I assume ensures only people who have bought the book or who have access to a copy can register for the free version (incidentally there is a different free version of AgenaRisk on the website [...] that I had previously tried out, but the one that comes with the book allows you to save bigger models with more features). I did find a few obvious errors in the book (including a couple that appear in simple figures in Chapter 1 which really confused me until I realized they were wrong) but I later found that the book's dedicated website [...] actually lists all the errors I found.

5.0 out of 5 stars **Risk Managers Need Bayes In Their Lives**, December 19, 2012

By
Neil C

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

Let's be honest, most risk assessment methodologies are guesses, and not very good ones at that. People collect statistics about what they can see and then assume it tells them something about what they can't. The problem is that people assume the world follows nice distributions embedded in the world's fabric and that we simply need a little data to get the parameters right. Fenton and Neil take readers on an excellent journey through a more modern and appropriate way to make sense of uncertainty by leveraging prior beliefs and emerging evidence. Along the way they provide a wake up call for the classic statistical views of risk and eloquently show the biases, fallacies and misconceptions that exist in such a view, and how dangerous they are for those making decisions.

The book is not condescending to those without a mathematical background and is not too simple for those who do. It sets a nice tone which focuses more on how readers should think about risk and uncertainty and then uses a wealth of practical examples to show them how

Bayesian methods can deliver powerful insights.

After reading this you should be in no doubt that not only is it possible to model risk from the perspective of understanding how it behaves, but also that is necessarily the only sensible way to do so if you want to do something useful with your model and make correct decisions from it.

Anyone aspiring to work, or already working, in the field of risk is well advised to read this book and put it into practice.

5.0 out of 5 stars **Best for learning Bayesian Networks from scratch**, December 18, 2012

By
Dr S Muralidharan -

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

This is a very good introductory book on Bayesian Networks. The authors explain the concepts very well with well chosen examples and the AgenaLite tool that you can download when you purchase the book will help to see the models and play with them to understand them better. Very few errors are found: On page 22, the diagrams for Revised causal model and Causal model with additional information are the same (the revised causal model should not have an arrow between Sex and drug taken nodes), on page 132, "The probability Norman is late given that there is a train strike is 0.8 (and therefore by Theorem 2 the probability Norman is not late given that there is not a train strike is 0.2)" the second part of the sentence should be "probability Norman is not late given that there is a train strike is 0.2". The explanations are very easy to follow and it is as if you are sitting in the authors' class and listening to them. Only Chapter 6 is a bit heavy going. Once you master the material in this book, you can go for the more technical expositions (Probabilistic Graphical Models by Koller and Friedman).
Highly recommended.
Help other customers find the most helpful reviews
Was this review helpful to you? Yes No
Report abuse | Permalink
Comment Comment

5.0 out of 5 stars **Excellent book**, December 14, 2012

By
a.l.s -

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

This book is a real pleasure. It makes things clear gradually emphasizing on meaning rather than on technique. The foundations of probabilities are revisited adding the unique or unexpected events that get things closer to reality. The AgenaRisk software (provided for free for people who bought the book) is a must for following by doing the examples in the book. I

was waiting for this book since summer 2012 when it was initially announced for release - I finally got it in November and I'm enjoying it :) Many thanks to Fenton & Neil!

5.0 out of 5 stars **"all models are wrong, but some are useful" - This books REALLY makes you appreciate this quote!**, December 6, 2012

By
Anthony (London, UK)

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

I HIGHLY RECOMMEND this book to anyone interested in prediction and risk analysis in general, with a particular focus on BN modelling. Let me tell you why I find this book exciting:

- the material is presented such so that non-mathematicians can also understand its content, starting from statistics and probability theory (you won`t have to skip half the book just because you do not understand the math);
- explains from scratch how to develop BN models and use them for prediction, risk analysis, and decision making in various (simple and advance) real-world problems;
- demonstrates how to incorporate knowledge with data to enhance predictive accuracy;
- explains everything in plain English with excellent style and sufficient motivation to keep you entertained;
- suitable for students, advanced readers and professionals;
- provides access to the BN tool which includes the examples discussed within this book, along with many other examples, and allows the readers to develop BN models for themselves;
- written by authors who have years of experience in both academia and industry in developing and applying these kind of models to various domains.

5.0 out of 5 stars **It is really fantastic**, December 6, 2012

By
Yun Zhou (UK)
(REAL NAME)

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

This book is very suitable for a student who wish carry out his career in risk analysis and bayesian network modeling. It contains a lot of real world examples, which can help you understand the current challenges and create a more realiable risk analysis model.

5.0 out of 5 stars **OUTSTANDING BOOK!!!!!**, December 3, 2012

By
ConstantReader (Florham Park, NJ USA)

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

This book makes Bayesian statistics accessible to everyone - in addition to being a great primer for scientists and mathematicians unfamiliar with the topic. It helps visualize a difficult concept.

5.0 out of 5 stars **Excellent and enjoyable book with great software link**, November 28, 2012

By
Honshin (Waco, TX USA)

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

I bought this book to gain a better understanding of Bayesian analysis, but I have found the book to offer so much more. The authors assume little prior knowledge and do one of the better jobs of building the reader's understanding of probability from the perspective of the "frequentist" and a more Bayesian approach. They use relevant and easily understood examples that entertain while teaching.

Buyers of the book also have access to the Lite version of the AgenaRisk software which is well worth the price of the book. Unlike so many statistical books that focus on method and math, this one focuses on the underlying question to be answered and how to design a study to provide insight into that question. They offered a helpful discussion of the difference between "statistically significant" and "relevant and actionable".

I highly recommend this book to practitioners who want to effectively apply statistical tools to risk assessment and decisions. I plan to incorporate many of these ideas into our Lean Six Sigma initiatives.

On Amazon.co.uk (duplicates from amazon.com removed)

4.0 out of 5 stars **A great book but beware...**, 1 April 2014

By
suilven (UK)

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

I'm enjoying reading this book and I'm learning a lot. However, there are a couple of things to watch out for...

1) The text is peppered with boxes, figures, tables, diagrams and side notes, and there are frequent references to "Axiom 2.3", "Theorem 4.1", etc, so you need good navigational skills and a lot of patience! I bought the hardback and I'm glad I did because I doubt I could cope with all that hopping around in electronic format.

2) I was seriously starting to question my sanity regarding even the most basic aspects of probability... then I realised there are mistakes in the text. In fact, there are quite a lot of them. See bayesianrisk.com for the errors list which currently runs to 9 pages.

On the plus side the book is supported by a web site and you get a "lite" version of AgenaRisk to play with.

4.0 out of 5 stars **The future of risk assessment**, 16 Aug 2013

By
Roger Gregson

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

This book is the way of the future with risk assessment and should be read with Nancy Leveson's book Engineering a Safer World.

4.0 out of 5 stars **This is a very interesting book**, 11 July 2013

By
PeterP -

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Kindle Edition)

I am still reading it, but so far the text has been very interesting and different from other books on risk management. The book is very well written and full of carefully selected and useful examples.
I have known the BBN formalism for many years and yet found the text very informative. The book is definitely worth buying.

5.0 out of 5 stars **Excellent, well written book with a fresh view on risk prediction and analysis**, 21 Jun 2013

By
Katya

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

This book gives a fresh view on risk assessment and decision analysis that goes from basic probability and reasoning, right through to advanced models and methodologies. Risk Assessment and Decision Analysis with Bayesian Networks is a very well written book, which makes it easy and pleasant to read, using humour and informative examples to enable readers of all levels to appreciate the theory and applications this book describes.

From reading this book, I can say that it definitely does not require you to hold sophisticated knowledge of probability and statistics, as it explains concepts in a simple and concise manner, without alienating the more knowledgeable reader. The multitude of examples, diagrams and tables help to ensure that information is conveyed quickly, and is accessible to those looking for practical value from a solid, educated textbook.

I have to say that this is a brilliant book, which makes Bayesian networks understandable to the beginner, while helping to educate even higher level readers with new concepts and excellent potential practical applications for risk assessment and decision analysis theory and methodologies.

5.0 out of 5 stars **Evidence to update your risk modelling ?**, 9 Jan 2013

By
E. J. Bailey (UK) - s
(REAL NAME)

Amazon Verified Purchase

This review is from: Risk Assessment and Decision Analysis with Bayesian Networks (Hardcover)

This is both an excellent review of risk analysis and Bayesian Networks a well as a powerful argument to reconsider how one formulates risk based decisions. There is an erudite and pragmatic review of the technical basis and extensive "experimental" evidence is provided, in the form of examples, as to where BN techniques are applicable.,which is surprisingly wide ranging. This approach forms an interesting complement (or perhaps replacement?) to more popular methods such as QRA and simulation.