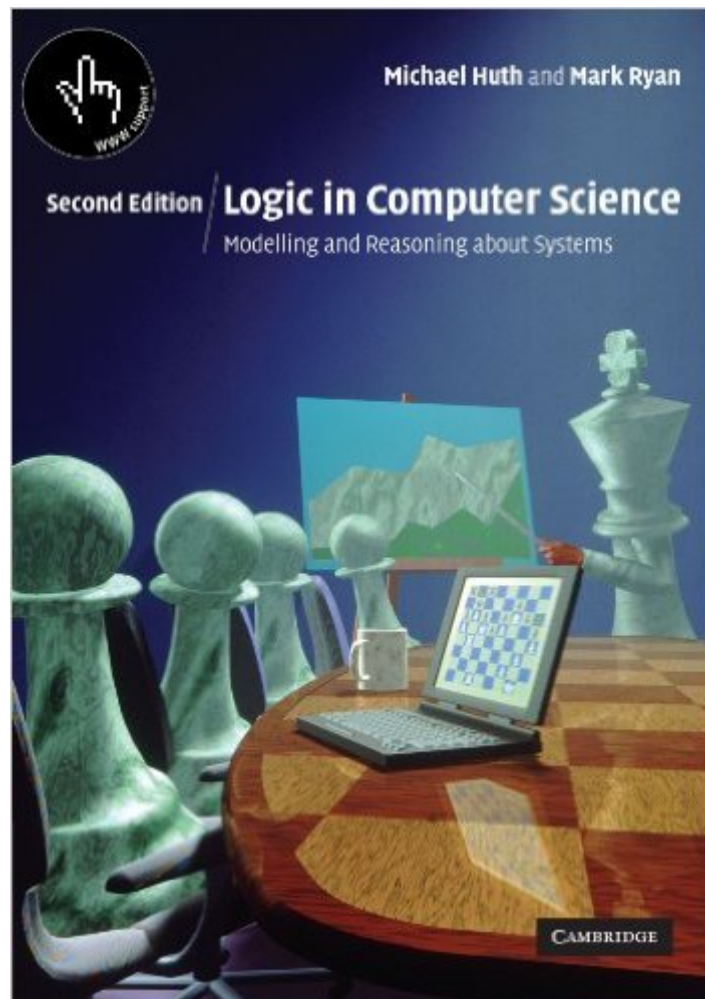# Logic In Computer Science: Modelling And Reasoning About Systems

Synopsis

The second edition of this successful textbook continues to provide a clear introduction to formal reasoning relevant to the needs of modern computer science and sufficiently exacting for practical applications. Improvements have been made throughout with many new and expanded text sections. The coverage of model-checking has been substantially updated and additional exercises are included. Internet support includes worked solutions for teacher exercises and model solutions to some student exercises. First Edition Hb (2000): 0-521-65200-6 First Edition Pb (2000): 0-521-65602-8

Book Information

Paperback: 440 pages

Publisher: Cambridge University Press; 2 edition (August 30, 2004)

Language: English

ISBN-10: 0541743104

ISBN-13: 978-0521543101

ASIN: 052154310X

Product Dimensions: 6.8 x 0.8 x 9.7 inches

Shipping Weight: 2 pounds (View shipping rates and policies)

Average Customer Review: 4.4 out of 5 starsÂ Â See all reviewsÂ (11 customer reviews)

Best Sellers Rank: #330,850 in Books (See Top 100 in Books)   #47 inÂ Books > Computers & Technology > Hardware & DIY > Microprocessors & System Design > Computer Design   #58 inÂ Books > Computers & Technology > Programming > Software Design, Testing & Engineering > Logic   #971 inÂ Books > Computers & Technology > Programming > Software Design, Testing & Engineering > Software Development

Customer Reviews

The coverage of this book is quite good for what concerns logic in computer science. However, using it as an introduction on logic for computer scientists is probably ambitious because the explanations are rather complicated for undergraduates. A first course on logic and another on AI would not hurt before getting into this one. Too many notions of computer science (syntax and semantics of programming languages, complexity) are needed to fully understand some topics, hence it is better that you already have a broad view of all aspects of computer science before reading this one. As an advanced course textbook to formal techniques in computer sciente on the other hand, this one would do the job.

A lot of good material is covered and in a relatively tight fashion. The presentation of logic is well done, but when getting into the BDDs, the explanations get a little complicated and I personally had to read it over several times before I could make sure I understood what was going on. This book also does not have anything on symmetry, so if that's what you're looking for, there are better books out there. However, this book can hold its own and I recommend it to anyone interested in learning the basics of model checking provided they can take handle some of the heavy duty reading.

This book is a good introduction to logic. It is highly readable, not dry. It explains logic in the language of humans, not arcane mathematics, yet it somehow is able to remain rigorous. This makes logic make sense, rather than it being an abstract intellectual pursuit detached from life and other topics.Half the book is on logic, half on model checking. I've only read the logic part so far, so I cannot compare the model checking treatment to that in Clarke et al.'s "Model Checking."The logic treatment is not specific to computer science (or at least did not seem to be so, for someone not a student of mathematics and logic), so in my opinion the title is a misnomer; perhaps a better title would be "Logic for People, and Model Checking Too."

I would say prior introduction to logic would definitely help.This is a good book. The subject matter isn't easy, but I feel the explanations are clear and not overtly verbose. This may not be what you want to hear, but read it slowly, thoroughly, and repeatedly and you will definitely get your moneys worth. This is the second book on logic I've read, but conceptually has definitely had a bigger impact on my reasoning and day to day thinking. I've been surprised at the places this way of thinking has come out.

If I didn't have to buy this book for one of my subjects, I would never buy it. It is quite hard to follow at times. If I didn't have exposure to logic from before, I'd probably struggle with this book. But if you re-read things over, you do get it in the end. I wish the book explained things in more detail and in simpler ways. It seems the authors did not keep in mind that the readers are not as experienced in logic as they are. I also didn't like the fact that there's quite a bit of errata in the book, which can be quite confusing to a student.

Having taken this class at Kansas State University under the author Michael Huth. Reading this book before lecture often left me a bit confused, but after the lectures it seemed to be brought

together, but this is my personal experience, your milage may differ. The book has excellent examples and a great introduction to logic and this book, along with great instruction should help you understand better the logical foundations of computer science.

Logic in Computer Science: Modelling and Reasoning about Systems Clay Modelling for Beginners: An Essential Guide to Getting Started in the Art of Sculpting Clay ~ (Clay Modelling | Clay Modeling | Clay Art) Probabilistic Reasoning in Intelligent Systems: Networks of Plausible Inference (Morgan Kaufmann Series in Representation and Reasoning) Entity-Relationship Approach - ER '94. Business Modelling and Re-Engineering: 13th International Conference on the Entity-Relationship Approach, ... (Lecture Notes in Computer Science) Python: Python Programming For Beginners - The Comprehensive Guide To Python Programming: Computer Programming, Computer Language, Computer Science Python: Python Programming For Beginners - The Comprehensive Guide To Python Programming: Computer Programming, Computer Language, Computer Science (Machine Language) The PowerScore LSAT Logical Reasoning Bible: A Comprehensive System for Attacking the Logical Reasoning Section of the LSAT Digital Logic Design and Computer Organization with Computer Architecture for Security Automated Reasoning with Analytic Tableaux and Related Methods: 16th International Conference, TABLEAUX 2007, Aix en Provence, France, July 3-6, 2007, Proceedings (Lecture Notes in Computer Science) Provably Correct Systems: Modelling of Communication Languages and Design of Optimized Compilers (The Mcgraw-Hill International Series in Software) Actuarial Modelling of Claim Counts: Risk Classification, Credibility and Bonus-Malus Systems Spatial Cognition V: Reasoning, Action, Interaction (Lecture Notes in Computer Science) Modelling the Human Impact on Nature: Systems Analysis of Environmental Problems Battery Management Systems: Design by Modelling (Philips Research Book Series) LSAT Strategy Guides (Logic Games / Logical Reasoning / Reading Comprehension), 4th Edition Generalized Quantifiers and Computation: 9th European Summer School in Logic, Language, and Information, ESSLLI'97 Workshop, Aix-en-Provence, France, ... Lectures (Lecture Notes in Computer Science) An Introduction to Logic Programming Through Prolog (Prentice Hall International Series in Computer Science) P-Prolog: A Parallel Logic Programming Language (World Scientific Series in Computer Science) Love and Logic Magic: When Kids Drain Your Energy (Parenting with Love and Logic) Prolog ++: The Power of Object-Oriented and Logic Programming (International Series in Logic Programming)