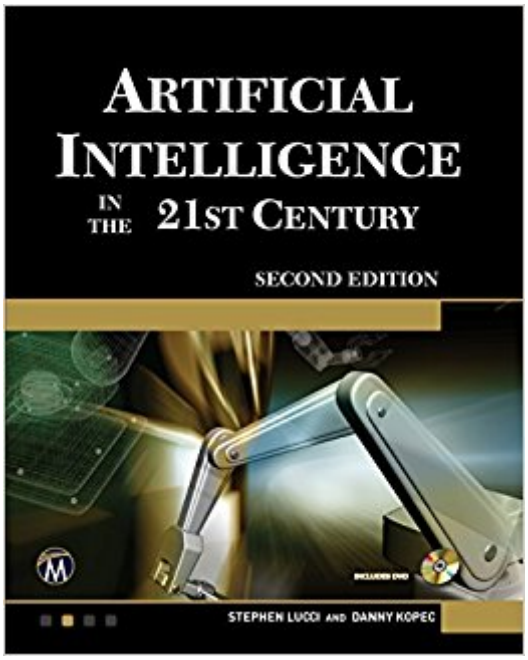
Artificial Intelligence In The 21st Century (Computer Science)



Synopsis

This new edition provides a comprehensive, colorful, up to date, and accessible presentation of AI without sacrificing theoretical foundations. It includes numerous examples, applications, full color images, and human interest boxes to enhance student interest. New chapters on robotics and machine learning are now included. Advanced topics cover neural nets, genetic algorithms, natural language processing, planning, and complex board games. A companion DVD is provided with resources, applications, and figures from the book. Numerous instructorsâ ™ resources are available upon adoption.eBook Customers: Companion files are available for downloading with order number/proof of purchase by writing to the publisher at info@merclearning.com. FEATURES:â ¢ Includes new chapters on robotics and machine learning and new sections on speech understanding and metaphor in NLPâ ¢ Provides a comprehensive, colorful, up to date, and accessible presentation of AI without sacrificing theoretical foundationsâ ¢ Uses numerous examples, applications, full color images, and human interest boxes to enhance student interestâ ¢ Introduces important AI concepts e.g., robotics, use in video games, neural nets, machine learning, and more thorough practical applications â ¢ Features over 300 figures and color images with worked problems detailing AI methods and solutions to selected exercisesâ ¢ Includes DVD with resources, simulations, and figures from the bookâ ¢ Provides numerous instructorsâ ™ resources, including: solutions to exercises, Microsoft PP slides, etc.

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Customer Reviews

Stephen Lucci holds a Ph.D. from the CUNY Graduate School and currently teaches computer science at The City College of New York. Dr. Lucci has published in the areas of high performance computing and has been co-PI on education grants from NASA MU-SPIN.Danny Kopec taught at Brooklyn College and the CUNY Graduate Center. He authored several books, conference and journal articles, and was an International Chess Master.

Ã¢Â ÂœArtificial Intelligence in the 21st CenturyÃ¢Â Â• by Lucci and Kopec is a resourceful, book that is user friendly with illustrative and intellectual appeal. After reading Chapter One I was hooked by the interesting historical overview and discourse of salient issues and research areas in the field.I work in the medical profession and I am fascinated by the prospect of a computer performing at or near the level of a human being. Advances in computer science and medical technology created the electronic health record; diagnostic equipment for the early detection and treatment of cancer; minimally invasive surgery using robotic techniques and congestive heart failure remote monitoring programs.My special interest in artificial intelligence (AI) is expert systems. Early AI systems often used the medical arena as a test bed. So, naturally I skipped to Chapter Nine which served as an insightful introduction to this field.Learning is another branch of AI that has intrigued me; how does one build systems that are capable over time to improve their performance? I found Chapter Eleven to be fascinating. The discussion on simulated annealing, genetic algorithms, and ant colony optimization were enlightening.The mathematics in Chapter Ten on neural networks was a tad overwhelming, as I am not a math major. However, I really like the conversational tone, graphics and illustrations which make this text book user friendly.I especially like the Ã¢Â ÂœHuman Interest NotesÃ¢Â Â• that provide a snap shot and overview of prolific contributors in the field of AI.I found the Ã¢Â ÂœQuestions for DiscussionÃ¢Â Â• and Ã¢Â ÂœExercisesÃ¢Â Â• well structured, original and designed to stimulate sustained interest and provide an in-depth understanding of the topics.Chapter Fifteen presents an impressive and exciting review of the present and future of AI.One last comment: Inductive Learning is a popular methodology used in medicine. I hope that later editions of this text will include an expanded discussion of this approach. All in all, I found this text book to be an excellent treatise on AI and I highly recommend it to others.

This is a great textbook which elucidates the field of AI without unnecessarily obfuscating it with technical complexity. That is not to say that the material is trivial - not at all - and some chapters like Neural Networks are very mathematical, but in general the tone is not overly pedantic like some AI

texts can be, but more conversational with the intention of eliciting curiosity and encouraging independent thinking. I would say that the underlying theme of the book is problem solving, which includes learning through solving problems, thinking about how humans solve problems, and how to make computers solve problems intelligently.The book is very comprehensive in that it covers a broad range of topics in AI from Neural Networks to Expert Systems. It's also full of Human Interest notes that pay homage to the great thinkers and doers in the field of AI. After finishing this textbook I think any interested student would be very comfortable delving into a more rigorous domain-specific text.

The book is a great overview of the science. It covers many topics, but goes into none of them in depth. I enjoy the frequent addition of side-bar biographies of key people. After reading this book, you should have a good understanding of the layout of the field of Artificial Intelligence as it stands today, and have an idea of where you would like to start searching next for deeper understanding. While the book does have you 'get your feet wet' with several questions and programming challenges at the end of each chapter, you should not expect to be an expert in any one of the fields of AI when you finish reading this overview.

This book has a very good organization of the knowledge in AI, it has the classical AI problems with detailed solutions. Beginning with the classical game, it introduces the important algorithms in AI gradually. This book is interesting and easy to understand. I strongly recommend people who is interested in AI and want to explore more in AI to read this book. It is also suitable for people without any previous knowledge about AI and computer science. The only required thing is that you have interest in AI and want to have a good understanding about the inside of AI, not only with the hollywood movies. Through this book, you may learn a lot AI knowledge as the graduate students in school, it may open a door for you to the deeper research in this field.

The only Artificial book I've gotten but it's pretty great. It seems to cover things from an abstract level. Helping you understand concepts and it even has little biography snippets of famous pioneers in artificial intelligence over the years. It's probably one of my favorite text books of all time.It does not go into code though, instead it focuses on how things work. As well as the history of how certain practices developed and what they are used for.

The variety of areas covered in this AI textbook makes it one of the most comprehensive and best

book on Artificial Intelligence since Norvig and Russell's modern Approach. I loved the coverage on Informed Searches and Logic. It is the new must have in AI textbooks. The examples are new, relevant and much easier to understand than previous texts. This is one of the few books that I kept from my studies.

Don't buy this book. They don't even emend its context before publishing, I can't even believe it is a textbook. So many naive mistakes! It can only misleading the learner!

Every time I read this book I want to fall asleep. AI can be a very interesting topic but this author isn't.

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