

Review

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Fundamentals of artificial intelligence

Chowdhary K., Springer International Publishing, New York, NY, 2020. 746 pp. Type: Book (978-8-132239-70-3)

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Full Text

Recommendations

Reviewer Selected

This book introduces the fundamentals of artificial intelligence (AI). It can be used as a computer science (CS) textbook for graduate or undergraduate students, or as a resource for researchers.

The book has 21 chapters. The first chapter is an introduction to the fields of AI. Chapters 2 through 5 are about logic, and chapters 6 and 7 are about knowledge and network representation. Chapters 8 and 9 present search methods. Chapter 10 covers constraint satisfaction problems and chapter 11 is about game theory. Reasoning is explained in chapter 12. Chapters 13 through 16 cover machine learning, statistical learning theory, automated learning, and intelligent agents, respectively. Chapter 17 informs readers about data mining, and chapter 18 is on information retrieval. The remaining chapters discuss natural language processing, speech recognition, and machine vision.

Each chapter starts with an abstract and keywords. An introduction to the topic and learning outcomes are presented. In addition to theoretical knowledge, examples and illustrations are given. The chapters end with a summary, exercises, and references. Students and readers would benefit more if hands-on Python exercises and projects were included. The book is very theoretical and lacks the ability to introduce hands-on exercises.

The book is a good textbook for CS courses, as well as a helpful resource for people working in academia or industry. It will be beneficial in teaching the fundamental concepts of AI. A professional who knows the background theory of AI can easily comprehend new algorithms and technologies. However, anyone who learns the latest AI methods in a superficial manner will have difficulty following the new changes. Along these lines, for people interested in learning the theory of AI, it is both a good textbook and valuable resource.

Reviewer: [Gulustan Dogan](#)

Review #: CR147149

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