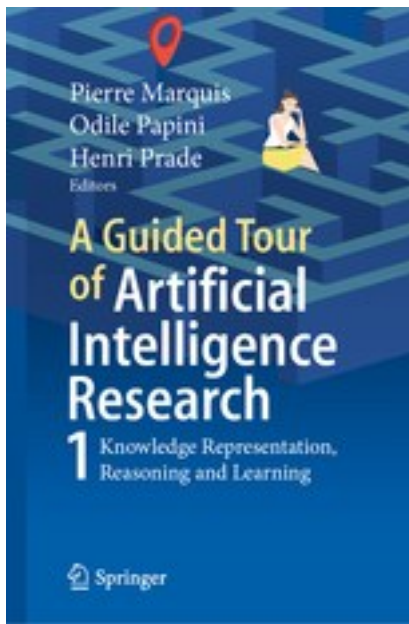


A Guided Tour of Artificial Intelligence Research



[A Guided Tour of Artificial Intelligence Research_ 下载链接1](#)

著者: Pierre Marquis

出版者: Springer

出版时间: 2020-7-30

装帧: Hardcover

isbn: 9783030061630

The purpose of this book is to provide an overview of AI research, ranging from basic work to interfaces and applications, with as much emphasis on results as on current issues. It is aimed at an audience of master students and Ph.D. students, and can be of interest as well for researchers and engineers who want to know more about AI. The book is split into three volumes:

- the first volume brings together twenty-three chapters dealing with the foundations of knowledge representation and the formalization of reasoning and learning (Volume 1. Knowledge representation, reasoning and learning)
- the second volume offers a view of AI, in fourteen chapters, from the side of the algorithms (Volume 2. AI Algorithms)

- the third volume, composed of sixteen chapters, describes the main interfaces and applications of AI (Volume 3. Interfaces and applications of AI).

Implementing reasoning or decision making processes requires an appropriate representation of the pieces of information to be exploited. This first volume starts with a historical chapter sketching the slow emergence of building blocks of AI along centuries. Then the volume provides an organized overview of different logical, numerical, or graphical representation formalisms able to handle incomplete information, rules having exceptions, probabilistic and possibilistic uncertainty (and beyond), as well as taxonomies, time, space, preferences, norms, causality, and even trust and emotions among agents. Different types of reasoning, beyond classical deduction, are surveyed including nonmonotonic reasoning, belief revision, updating, information fusion, reasoning based on similarity (case-based, interpolative, or analogical), as well as reasoning about actions, reasoning about ontologies (description logics), argumentation, and negotiation or persuasion between agents. Three chapters deal with decision making, be it multiple criteria, collective, or under uncertainty. Two chapters cover statistical computational learning and reinforcement learning (other machine learning topics are covered in Volume 2). Chapters on diagnosis and supervision, validation and explanation, and knowledge base acquisition complete the volume.

作者介绍:

目录:

[A Guided Tour of Artificial Intelligence Research_ 下载链接1](#)

标签

Reason

Handbook

AI

评论

[A Guided Tour of Artificial Intelligence Research_下载链接1](#)

书评

[A Guided Tour of Artificial Intelligence Research_下载链接1](#)