

1. Record Nr.	UNINA9910299226903321
Autore	Barros Rodrigo C
Titolo	Automatic Design of Decision-Tree Induction Algorithms // by Rodrigo C. Barros, André C.P.L.F de Carvalho, Alex A. Freitas
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-14231-3
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (184 p.)
Collana	SpringerBriefs in Computer Science, , 2191-5768
Disciplina	004 006.312 006.4
Soggetti	Data mining Pattern recognition Data Mining and Knowledge Discovery Pattern Recognition
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Decision-Tree Induction -- Evolutionary Algorithms and Hyper-Heuristics -- HEAD-DT: Automatic Design of Decision-Tree Algorithms -- HEAD-DT: Experimental Analysis -- HEAD-DT: Fitness Function Analysis -- Conclusions.
Sommario/riassunto	Presents a detailed study of the major design components that constitute a top-down decision-tree induction algorithm, including aspects such as split criteria, stopping criteria, pruning and the approaches for dealing with missing values. Whereas the strategy still employed nowadays is to use a 'generic' decision-tree induction algorithm regardless of the data, the authors argue on the benefits that a bias-fitting strategy could bring to decision-tree induction, in which the ultimate goal is the automatic generation of a decision-tree induction algorithm tailored to the application domain of interest. For such, they discuss how one can effectively discover the most suitable set of components of decision-tree induction algorithms to deal with a wide variety of applications through the paradigm of evolutionary computation, following the emergence of a novel field called hyper-

heuristics. "Automatic Design of Decision-Tree Induction Algorithms" would be highly useful for machine learning and evolutionary computation students and researchers alike.
