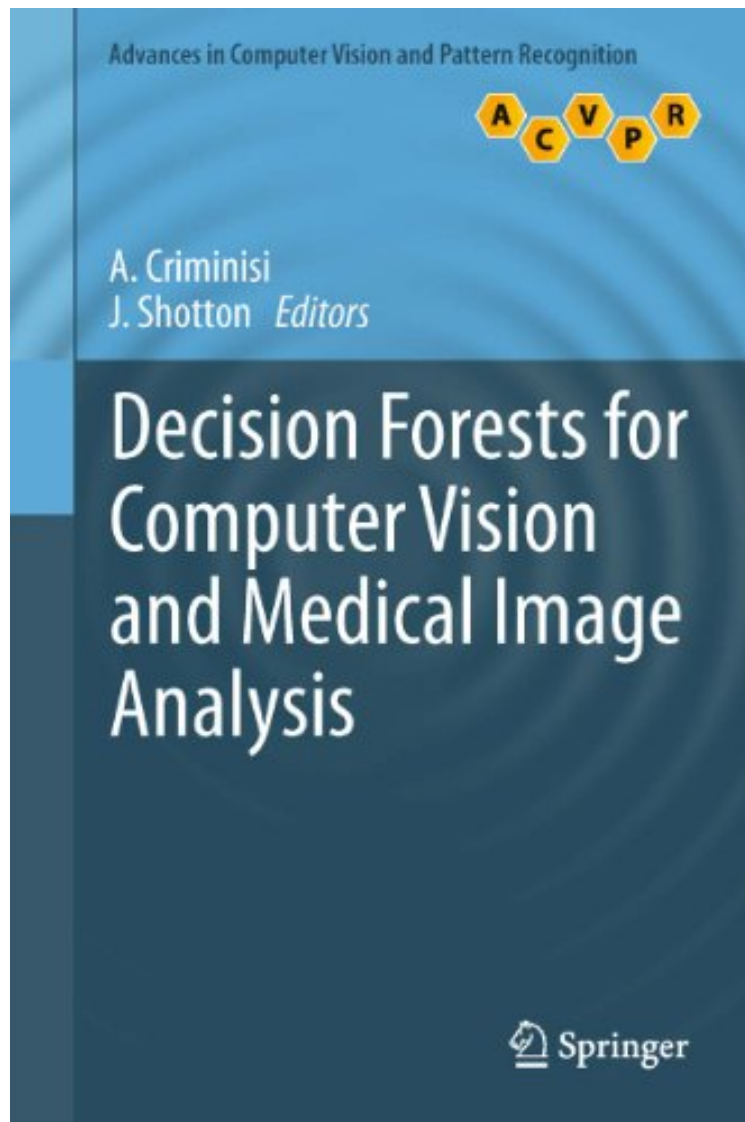


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Decision Forests for Computer Vision and Medical Image Analysis (Advances in Computer Vision and Pattern Recognition)

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Von Springer : Decision Forests for Computer Vision and Medical Image Analysis (Advances in Computer Vision and Pattern Recognition) before purchasing it in order to gage whether or not it would be worth my time, and all praised Decision Forests for Computer Vision and Medical Image Analysis (Advances in Computer Vision and Pattern Recognition):

KundenrezensionenHilfreichste Kundenrezensionen3 von 3 Kunden fanden die folgende Rezension hilfreich.
Thorough book, license problematicVon John McCormickThe book provides a very good starting point to get acquainted with decision forests.Especially the first chapters are great as they show how things work in a clear and understandable manner. The book starts with an introduction into decision trees and clearly defines the parts and nomenclature being used. This is important as similar concepts were developed by different people each using a slightly different way of describing the same thing.The following chapters point out ways to define and use the tree. The outcome of choices regarding setup are shown using clear diagrams and examples making it easy to see what can happen and if the outcome would be considered "good" or "bad". Even if your background in statistics is not up to date the introduction chapters still allow to get an idea what works, what are the side effects and if it works well or not. Where alternative algorithms exist there are comparisons using the same type of diagrams to make it possible to see what the differences between using a decision tree and some other established algorithm would be.In the second part the book includes chapter showing the application of decision forests to real life problems. The choice of problems is very good and gives an idea on what would be possible to achieve. Since some of the chapters are dealing with commercial software the details are somewhat limited but good enough to get an idea on how things could be done and what to look for when solving similar problems.Overall the book gives a thorough introduction and allows to get an idea about decision trees fast. You can find most of the information in publications as well but having it all in one book makes it a good way to learn about decision trees fast.If this book is so good why only 3 stars?The book refers to example code provided on their webpage at Microsoft and encourages the use of the code to build new things. The license you have to accept (Microsoft Research License) includes the following part:"...That Microsoft is granted back, without any restrictions or limitations, a non-exclusive, perpetual, irrevocable, royalty-free, assignable and sub-licensable license, to reproduce, publicly perform or display, install, use, modify, post, distribute, make and have made, sell and transfer your modifications to and/or derivative works of the Software source code or data, for any purpose..."The question of what would be considered a derivative work is interesting as the book provides an outline on how to structure decision forests, e.g. a blueprint on how to build decision forests. If you are reading this book as part of your work or are in a university and your work becomes commercially interesting you are faced with the potential problem of having to explain why your work is not a derivative work of the example code in the book and therefore owned by Microsoft.Unless you understand the mathematical models behind training and decision making the code is not very useful as you need to be able to adapt it to each problem and for this you need to understand the maths behind it. This makes the license terms problematic as there is a limited number of ways to structure your code (especially if you want to use standard terms for standard elements) and the example code (as seen in the book) uses these standard terms as well.The restrictive license may have been an oversight by the authors and probably difficult to enforce. Changing the license for the example code to something allowing you to look at it without fear of your future work being owned by somebody else would be highly appreciated,

KurzbeschreibungThis practical and easy-to-follow text explores the theoretical underpinnings of decision forests, organizing the vast existing literature on the field within a new, general-purpose forest model. Topics and features: with a foreword by Prof. Y. Amit and Prof. D. Geman, recounting their participation in the development of decision forests; introduces a flexible decision forest model, capable of addressing a large and diverse set of image and video analysis tasks; investigates both the theoretical foundations and the practical implementation of decision forests; discusses the use of decision forests for such tasks as classification, regression, density estimation, manifold learning, active learning and semi-supervised classification; includes exercises and experiments throughout the text, with solutions, slides, demo videos and other supplementary material provided at an associated website; provides a free, user-friendly software library, enabling the reader to experiment with forests in a hands-on manner.PressestimmenFrom the reviews:This book is a comprehensive presentation of the theory and use of decision forests in a wide range of applications, centered on computer vision and medical imaging. The book is strikingly well integrated. This is an excellent volume on the concept, theory, and application of decision forests. I highly recommend it to those currently working in the field, as well as researchers desiring an introduction to the application of random forests for imaging applications. (Creed Jones, Computing s, March, 2014)KurzbeschreibungThis practical and easy-to-follow text explores the theoretical underpinnings of decision forests, organizing the vast existing literature on the field within a new, general-purpose forest model. Topics and features: with a foreword by Prof. Y. Amit and Prof. D. Geman, recounting their participation in the development of decision forests; introduces a flexible decision forest model, capable of addressing a large and diverse set of image and video analysis tasks; investigates both the theoretical foundations and the practical implementation of decision forests; discusses the use of decision forests for such tasks as classification, regression, density estimation, manifold learning, active learning and semi-supervised classification; includes exercises and experiments throughout the text, with solutions, slides, demo videos and other supplementary material provided at an associated website; provides a free, user-friendly software library, enabling the

reader to experiment with forests in a hands-on manner.